

NOTES ON SOUTH AUSTRALIAN MARINE MOLLUSCA,
WITH DESCRIPTIONS OF NEW SPECIES.—PART XII.

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[Read October 5, 1909.]

PLATES XXVI. TO XXIX.

My paper contains descriptions of new species belonging to various genera, but consists chiefly of a revision of the *Pleurotomidae*. Mr. G. F. Angas wrote a paper on the "Marine Molluscan Fauna of South Australia" in the Proceedings of the Zoological Society of London for 1865, p. 155, in which he recorded 11 species, and 6 more in another short one in 1880. In 1893 Mr. Adcock in his "Handlist of the Aquatic Mollusca of South Australia" enumerated 20 species. In 1896 I sent to Mr. Sowerby examples of all species belonging to this family, which had been dredged by me during several years in South Australian waters up to 23 fathoms. He wrote a paper on them, which appeared in Proceedings of the Malacological Society of London, vol. ii., p. 24, and created 17 new species, and revised our previous lists, and brought the number up to 33. Since then my dredging has been extended to three hundred fathoms, and material of quite a different character has been collected. This has furnished examples of several shells previously registered for Victoria, Tasmania, and New South Wales, and especially of species from the deep dredgings of Mr. Hedley and Mr. May, together with quite a number unknown hitherto. This material has been submitted to these two gentlemen and Mr. Gatliff, who have very kindly identified several species from types in their possession or in their State Museums, and have furnished very helpful suggestions, for which I record my thanks.

The group has proved very difficult, chiefly owing to a wide variation, which affects so many of the species, and also to the rather indefinite character of not a few of the genera, making one uncertain as to their limits. In a few instances only has the animal been examined, and some feature been detected by which the shell may be more surely located.

Our family has now grown to the respectable number of 79 species, with 10 named varieties.

Hemipleurotoma quoyi, Desmoulins.

Pleurotoma quoyi, Desmoulins, Actes Soc. Linn., Bordeaux, 1842, p. 61; Reeve, Conch. Icon., vol. i., 1843, pl. 16, fig. 137; *Surcula quoyi*, Desmoulins, Tryon, Man. Conch., 1884, vol. vi., p. 167, pl. xxxiv., fig. 82; *Pleurotoma (Surgula) quoyi*, Desmoulins, Weinkauff, Conch. Cab. (Ed. Küster), 1887, Bd. iv., Abt. iii., p. 101, sp. 121, taf. xxii., fig. 2; *Pleurotoma (Drillia) quoyi*, Desmoulins, Watson, Chall. Repts. Zool., vol. xv., 1886, p. 304; *Drillia quoyi*, Desmoulins, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1900, vol. xii. (N.S.), part 2, p. 170, "Western Port, etc."; *Hemipleurotoma quoyi*, Desmoulins, Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 368, "Tasmania."

Pleurotoma philipineri, Tenison-Woods, Proc. Roy. Soc., Tasmania, 1876 (1875), p. 136; Tryon, Man. Conch., 1884, vol. vi., p. 167, pl. xxxiv., fig. 82.

Pleurotoma monile, Valenciennes (*non* Brocchi) Icon. Coq. Viv. Mon. *Pleurotoma*, p. 52, pl. xv., fig. 3; *Clavatula (Perrona) monile*, Val., Tryon, *op. cit.*, p. 232, pl. vii., fig. 96.

This shell has been placed in several sections or genera. Cossmann, in *Essais de Pal coconch. Comp.*, Deux Livr., 1896, separates the *Pleurotomidæ* with an apical nucleus to their operculum in a family *Pleurotominae* from the *Clavatulinae* with a lateral nucleus. In the former he puts the genera *Pleurotoma* and *Drillia*; in the latter *Clavatula* and *Surcula*. This species has an apical nucleus, and is therefore a *Pleurotoma* or a *Drillia*, and not a *Clavatula* or *Surcula*. The sinus, located at the carina and not above it near the suture, makes it a *Pleurotoma* and not a *Drillia*; while the short canal places it in the section *Hemipleurotoma* (Cossmann, 1889).

Dredged alive in 17 fathoms, Investigator Strait; and in 10 and in 19 fathoms, Yankalilla Bay. It has been taken dead at all depths from 10 to 22 fathoms in Gulf St. Vincent and Spencer Gulf, and Backstairs Passage.

A variant was taken in deep water in 110, 150, and 200 fathoms off Beachport, 4 good specimens and 3 very poor, and in 130 fathoms off Cape Jaffa, all dead. It is longer and narrower, and has a less marked carina, and the spiral liræ are less unequal. The type of *P. monile*, Valenc, Kienner's Coq. Viv. Icon., p. 52, pl. xiii., fig. 3, from "the seas of Oceania, the shores of New Holland, at Western Port," shows no nodules either at the suture or at the angle. The transverse liræ are described as striæ, but the figure suggests spiral incisions, equidistant. This is very different from the South Australian form, which has well-marked nodules below the suture and on the angle, and valid spiral subdistant liræ, with two or three interstitial lirulæ between them. Shells sent me from the type locality, dredged by Mr. Gabriel, are much more typical, and confirm the figure and description, and show our shells to be variants.

Hemipleurotoma perksi, Verco.

Surcula perksi, Verco, Trans. Roy. Soc., South Australia, vol. xx., 1896, p. 224, pl. vii., fig. 3, a, b, and c. *Type locality*—"15 fathoms off Thistle Island, Spencer Gulf."

Hemipleurotoma vestalis, Hedley.

Daphnella vestalis, Hedley, Memoirs Austr. Mus., iv., part 6, 1903, p. 390, fig. 105. "Taken in 24 and 52 fathoms, off Port Stephens and Botany Bay."

Dredged in 104 fathoms 35 miles south-west of Neptune Islands, 2 good dead, 1 fragment. Identified by Hedley from his type.

As this shell has its sinus at the carina and has a short canal, it has been placed in *Hemipleurotoma*.

Hemipleurotoma mayi, n. sp. Pl. xxv., fig. 2.

Shell thin, oval, white, of 4 whorls besides a brown protoconch of 2 whorls, which are convex, apparently smooth, but under the microscope very finely spirally lirate and interstitially punctate. Spire-whorls convex medially sharply angulate with a cord, base contracted, and forming a moderately long canal, which is slightly curved to the left. Sutures distinct, finely canaliculate. Aperture obliquely oval; outer lip thin, simple, ridged outside by the spirals, with an obtuse shallow, wide triangular sinus at the angulation. Sculpture: above the angle are three spirals in each whorl, and one below it; in the body-whorl are eighteen, subdistant just below the angle, crowded towards the canal. Very fine axials, about 42 in the penultimate, run obliquely back from the suture to the angle, and then at an obtuse angle obliquely forward to the suture.

Dim.—Length, 4.6 mm.; of the body-whorl, 3.1 mm.; width, 2.4 mm.

Locality.—Type in 104 fathoms, 35 miles south-west of Neptune Islands, with 2 others dead.

Diagnosis.—*D. vestalis*, Hedley, though described as having a smooth protoconch, has it punctate spirally striate, differs in being larger, more solid, more obese, not so sharply angled, and in having a shorter canal, and fewer and more solid axials.

Variations.—One example has only one spiral above its very sharp angle, namely, a bold cord just below the suture, making this more channelled; and only one below the angle just above the suture in the second and third whorls, and seven in the body-whorl.

Drillia harpularia, Desmoulins.

Drillia harpularia, Desmoulins, Actes Soc. Linn., Bordeaux, vol. xii., p. 162; (*Pleurotoma*) Reeve, Conch. Icon., vol. i., 1843, pl. xv., fig. 124; (*Drillia*) Tryon, Man. Conch., vol. vi., 1884, p. 193, pl. xiv., fig. 99; (*Pleurotoma* [*Crassispira*]) Weinkauff, Conch. Cab. (Ed. Küster), Bd. iv., Abt. iii., p. 97, No. 115, pl. xxi., fig. 2, a and b; (*Drillia*) Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 24; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1900, vol. xii. (N.S.), p. 170, "Portland."

This is a common shell. It has been taken on the beach as far west as LeHunte Bay and St. Francis Island, and is very abundant at Sceales Bay. Dredged alive at all depths from 6 fathoms to 19 fathoms in Gulf St. Vincent and Spencer Gulf. It has not been taken alive or dead beyond 22 fathoms.

The operculum has a medio-lateral internal nucleus, and puts the shell into the subfamily Clavatulinæ and out of Pleurotominaæ, and therefore out of the genus *Drillia*. It might be transferred to *Clionella*, but if *D. harpularia* is removed probably many other of our *Drillias* should be; and so I have left it with them until more of them have had their opercula examined.

Drillia exarata, Reeve.

Pleurotoma exarata, Reeve, Proc. Zool. Soc., London, 1845, p. 112; Conch. Icon., 1845, pl. xxiii., fig. 201, "habitat unknown"; (*Drillia*) Tryon, Man. Conch., 1884, vol. vi., p. 204, pl. xii., fig. 14; (*Pleurotoma* [*Crassispira*]) *exaratum*, Reeve, Weinkauff, Conch. Cab. (Ed. Küster), 1887, Band iv., Abt. iii., p. 205, No. 226, pl. xxxix., fig. 12; (*Drillia*) Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 24, "Gulf St. Vincent (J. C. Verco)."

Taken on the beach, St. Francis Island, 4 good. Dredged alive in 9 fathoms Port Lincoln, and in 22 fathoms in Backstairs Passage, and dead at intermediate depths off Middleton and in Gulf St. Vincent.

(?) Drillia costicapitata, n. sp. Pl. xxvii., figs. 1 and 2.

Shell solid, high, narrow, conical, blunt at the apex, roundly much contracted at the base. Protoconch mamillate, of two and a quarter whorls, with eighteen round axial ribs. Suture linear, quite inconspicuous. Spire-whorls five, straight, sloping, with two carinæ, slightly nodulated, equidistant from each other and the sutures, the lower much the larger and rounder. Other spirals arise, so that in the penultimate there are two above each carina and two below the lower; in the body-whorl there are twelve below it; they are steep behind and sloping in front. Very fine sinuous growth striæ cross them. Aperture roundly rhomboidal,

canal short and open, slightly bent to the left. Outer lip thin, simple, crenulated outside by the spirals. Colour dull-creamy-white, with irregular faint-brown narrow axial flames, with a tendency to follow the curve of growth lines. The larger carinæ are more or less regularly articulated with brown.

Dim.—Length, 8 mm.; body-whorl, 4·6 mm.; width, 3·3 mm.

Locality.—Type in 40 fathoms off Beachport, with 5 others.

The protoconch is not the usual one of *Drillia*; it resembles closely that of *Fusus lincolniensis*, Crosse and Fischer, but the growth lines indicate a shallow, round sinus just below the suture, between the two carinæ, which is not found in *Fusus*. The type is immature, and the others are imperfect. A perfect adult may eventually determine the genus.

***Drillia dimidiata*, Sowerby.**

Drillia dimidiata, Sowerby, Proc. Mal. Soc., London, vol. ii., 1896, p. 24, pl. iii., fig. 2. *Type locality*—"Backstairs Passage, 16-18 fathoms (Verco)."

It may reach a length of 14 mm. Dredged in 12 fathoms off Porpoise Head, 1 dead; in 16-18 fathoms Backstairs Passage, 1 recent; in 19 fathoms Yankalilla Bay, 1 dead; in 20 fathoms off Newland Head, 1 dead; in 22 fathoms Backstairs Passage, 2 dead; in 40 fathoms off Beachport, 3 moderate.

***Drillia dulcis*, Sowerby.**

Daphnella dulcis, Sowerby, Proc. Mal. Soc., London, vol. ii., 1896, p. 26, pl. iii., fig. 5. *Type locality*—"Gulf St. Vincent (Verco)"; also var. *alba*.

Sowerby says in a note to his definition:—"There are no longitudinal ribs," but in the shell returned to me as the type there are very faint oblique axial plications, and in some specimens since collected these may be properly styled axial riblets. The shell may be of a dark-brown colour, with bands and flames of darker tint, or any lighter shade of brown to white, the tip being generally most coloured.

Mr. Hedley, on seeing my specimens, wrote:—"What I named as a variety of *D. haswelli*, Hedley, from Cape Pillar (Records of the Austr. Mus., vol. vii., No. 2, 1908, p. 112), is evidently your *D. dulcis*, Sow. Typical *D. haswelli* is distinct."

Dredged in 15, 16, 17, 20 fathoms in Gulf St. Vincent, Spencer Gulf, Backstairs Passage, and Investigator Strait, more than 80 alive and dead; in 15-20 fathoms off St. Francis Island, 2 very good; in 35 fathoms, 1 good and 3 poor;

in 40 fathoms off Beachport, 1 poor. Its habitat seems to be mostly under 25 fathoms.

Drillia jaffaensis, n. sp. Pl. xxvi., figs. 7, 8, and 9.

Shell turreted-oval, of 7 whorls, including the blunt protoconch of 2 smooth convex whorls, with a subimpressed suture, ending abruptly. Spire-whorls convex, angulated in the first and second below the middle, and at the middle in the fourth; with a subsutural threadlet in the first which enlarges progressively to a stout round spiral; in the second another appears midway between the angulation and the lower suture; and in the fourth another below this; in the fifth or body-whorl two fine spirals appear above the angulation, and there are thirteen below it, becoming fainter and lower anteriorly; they are much narrower than the interspaces; the spiral just below the suture, and that at the angulation are the most valid, and are well nodulated, the nodules being somewhat pliciform, directed downwards and backwards on the former, and downwards and forwards on the latter; the next two spirals are nodulated, but less so, also downwards and forwards. Axial liræ, starting from the suture, are directed downwards and backwards to the nodules on the first spiral, are then concave forwards between these and the nodules on the angulation, and then run obliquely convexly forward to the nodules on the next two spirals; on these, by intercalated liræ, the nodules are doubled in number, but are almost imperceptible on the spirals beyond. Body-whorl is rhomboidal, concavely contracted at the base. Aperture squarely oval, opening into a short, wide canal. Labrum thin, angulated at the upper fourth, slightly crinkled by the spirals, pinched in front to form the canal; in profile it has a deep trigonal sinus between the suture and the angle, is then convex, and has a shallow excavation where the aperture is pinched. Inner lip is a narrow glazed depression; columella straight. Colour white.

Dim.—Length, 8·8 mm.; of body-whorl, 5 mm.; breadth, 3·5 mm.

Locality.—Type from 130 fathoms off Cape Jaffa with 1 other; in 104 fathoms off Neptune Islands, 8 good, 25 immature or broken; in 110 fathoms off Beachport, 2 good; in 300 fathoms off Cape Jaffa, 2 very poor.

Drillia achatina, n. sp. Pl. xxvi., fig. 2.

Shell solid, elongate-fusiform, of $6\frac{1}{2}$ whorls, including the blunt protoconch, which merges into the spire insensibly. The first whorl and a half are smooth and rather flat; the next is scarcely convex, and has at first distant invalid axial angu-

lations, which gradually become more numerous and costulate; in the next whorl they become more distant again, and remain throughout the shell as feeble axial angulations which are just visible when looking at the shell from the apex. The spire-whorls are subconvex, subangulate just below the middle, and have the upper fourth somewhat adpressed just below the simple impressed suture. Aperture oblique oblong-ovate; canal short, wide, scarcely notched; outer lip solid but sharp, with a deep round sinus separated from the ascending suture by a callus from the posterior part of the inner lip, then straightly convexly antecurrent to two shallower sinuses at the base of the canal; inner lip a complete smooth thin applied glaze, thickened behind. Spiral incisions, which begin in the second half of the first sculptured protoconchal whorl, cut the surface up into flat slightly rounded ribs, increasing to eleven in the penultimate and twenty-four in the body-whorl, the second below the suture and that at the angulation being the widest. Microscopic accremental striæ scratch the whole surface and have the sinuosities of the outer lip. A narrow white spiral, articulated with brown, ornaments the angulation; with a fainter narrower one above, and a rather wider brown spiral articulated with white runs from the back of the aperture over the dorsum nearly to the lip margin. The general colour is brown, with darker irregular spots and clouds.

Dim.—Length, 7.9 mm.; of body-whorl, 4.7 mm.; breadth, 2 mm.

Locality.—Type alive in 20 fathoms 7 miles south-west of Newland Head; in 40 fathoms off Beachport, 3 fresh and 3 poor; in 55 fathoms off Cape Borda, 1 fresh; in Gulf St. Vincent at unrecorded depth, 1 fresh.

One example shows some ten previous labral edges in the body-whorl, sinuously marked out in white, and followed by deep-brown, which gradually fades out at the next labral edge. The affinity of this species is close to *D. agrestis*, which may possibly be a rude costate variant.

***Drillia agrestis*, n. sp. Pl. xxvii., fig. 7.**

Shell solid, rugged, elongate-fusiform, of $7\frac{1}{2}$ whorls, including the protoconch of one whorl and a half, smooth, round, and blunt. Spire-whorls sloping, scarcely concave in the upper part, convex in the lower. Suture distinct, with a narrow adpressed margin. Body-whorl concavely attenuated at the base. Aperture obliquely oval, shortly contracted posteriorly; canal short, open, barely notched. Outer lip sharp, slightly ascending at the suture, with the posterior

sinus deep, rather narrow, separated from the suture by a distance equal to its width, then convex, with an anterior shallow sinus at the base of the canal. Inner lip inconspicuous, applied, smooth, with a callosity at its junction with the outer lip. Sculpture: the first two whorls are closely, regularly, validly, axially costulate, the rest rudely ribbed in the anterior two-thirds; ribs oblique, rounded, rather wider than the interspaces, becoming less marked and more distant on the body-whorl, and almost absent on the base, about 14 in the penultimate; sublenticular accremental incisions. Spiral incisions are deep, irregularly slightly wavy, about 8 in the penultimate, and 20 in the body-whorl, nearly equidistant, in places alternately fine and wide. Colour uniform light-straw tint.

Dim.—Length, 8.5 mm.; of aperture, 3.25 mm.; breadth, 3 mm.; of aperture, 1 mm.

Locality.—Type in 40 fathoms off Beachport; in Gulf St. Vincent, depth unrecorded, 7 fresh and dead; in 17 fathoms Backstairs Passage, 1 alive, 2 dead.

***Drillia subplicata*, n. sp. Pl. xxvii., fig. 6.**

Shell short, solid, narrowly oval, with a blunt apex and slightly contracted base. Protoconch of two smooth, slightly convex whorls. Spire-whorls four, sloping scarcely convex. Sutures linear. Aperture oval, slightly contracted behind, opening widely into a very short canal in front. Outer lip simple; with a shallow, round sinus near the suture, a convex profile, and a very faint sinus anteriorly. Inner lip a complete, applied narrow glaze. Columella straight, slightly bent to the left in the canal. Faint oblique axial costæ, equal to the interspaces; well-marked crowded sinuous accremental striæ; no spiral sculpture. Light-brown, with a band of lighter colour on the middle of the spire-whorls, whitish where it crosses the costæ; three light bands on the body-whorl.

Dim.—Length, 7 mm.; breadth, 3 mm.

Locality.—Type 40 fathoms off Beachport; 110 fathoms, 1 moderate; in 130 fathoms off Cape Jaffa, 1 poor.

Diagnosis.—Mr. Hedley writes:—"This is not my *D. nenia*. Yours lacks the ribbing of my shell, is broader, and more solid, the notch is shallower, and the canal shorter."

***Drillia nenia*, Hedley.**

Drillia nenia, Hedley, *Memoirs Austr. Mus.* iv., part 6, 1903, p. 387, fig. 101. *Type locality*—"24 fathoms, Port Stephens"; also *Records Austr. Mus.* vi., part 2, p. 42.

Dredged in 200 fathoms off Beachport, 1 perfect; in 110 fathoms, 1 good.

Drillia woodsi, Beddome.

Drillia woodsi, Beddome, Proc. Roy. Soc., Tasmania, 1883 (1882), p. 167. *Type locality*—"Long Bay, D'Entrecasteaux Channel, Tasmania"; Tate and May, Proc. Linn. Soc., New South Wales, xxvi., 1901, part 3, p. 368; Hedley, Memoirs of Austr. Mus., iv., part 6, 1903, p. 388, "New South Wales coast."

Drillia howitti, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, vol. xii. (N.S.), 1899, p. 101, pl. viii., fig. 2. *Type locality*—"Gippsland coast."

Mr. Gatliff has kindly identified South Australian shells as *D. howitti*; Tate and May, and Hedley, *loc. cit.*, give this as a synonym of *D. woodsi*, Bedd., and Mr. May says ours are undoubtedly *woodsii*, from comparison with a drawing he made from Beddome's type, and though I have not seen this, on trust in their determination, I have called our shell *D. woodsi*, Bedd.

Taken on Middleton Beach, solid and much rolled. Dredged in 90 fathoms off Cape Jaffa, 1 good; in 104 fathoms off Neptune Islands, 1 good and 6 broken; in 110 fathoms off Beachport, 2 good, 17 poor or broken; in 130 fathoms off Cape Jaffa, 8 very poor; in 200 fathoms off Beachport, 2 good, and 7 poor or immature; in 300 fathoms off Cape Jaffa, 1 poor.

Var. acostata, n. var.

This differs in having no axial costæ, and in being less solid. That it is only a variety appears from two facts—first, the validity of the costæ can be graded in a series of examples from well-marked to absent; second, some shells have the costæ valid in the earlier whorls, but they fade to extinction in the later. It may reach a length of 21.5 mm., and have 12 whorls. Some individuals show 2, 3, or 4 opaque whitish hair lines in the substance of the spire-whorls. They are frequently prettily coloured, pinkish-salmon, with three rather indistinct bands in the body-whorl, a broad one below the suture, not distinctly bounded inferiorly, a second thin median band, and the third over the base and canal. In the spire they form an infra-sutural and a supra-sutural band.

Dredged in 110 fathoms Beachport, 2 good, 3 poor, 5 immature; in 130 fathoms off Cape Jaffa, 4 good, but immature; in 150 fathoms off Beachport, 15 moderate and poor; in 200 fathoms off Beachport, 17 good, 14 poor. They seem to favour the deeper waters, and to be more numerous than the typical forms there.

Drillia coxi, Angas.

Drillia coxi, Angas, Proc. Zool. Soc., London, 1867, p. 113, pl. xiii., fig. 15. *Type locality*—"Port Jackson"; *ibid.*, p. 203; Tate

and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 368. Tasmania; Hedley, Memoirs Austr. Mus., iv., part 6, 1903, p. 388, "may be 33 mm. long. Dredged in 28 fathoms off Manning River, New South Wales."

Drillia sinensis, Hinds, Tryon, Man. Conch., 1884, vol. vi., p. 201, pl. xi., fig. 6. He gives Angas' species as a synonym, but Hedley, *loc. cit.*, dissents.

Dredged in 200 fathoms off Beachport, 2 moderate; in 100 fathoms, 1, 20·8 mm. in length.

Drillia gratiosa, Sowerby.

Drillia gratiosa, Sowerby, Proc. Mal. Soc., London, vol. ii., 1896, p. 25, pl. iii., fig. 1. *Type locality*—"Gulf St. Vincent (Verco)."

Dredged in 17 fathoms off Point Marsden, 1 decolourized; in Gulf St. Vincent, depth unrecorded, 1 alive, 1 dead, 1 broken; in 22 fathoms off Cape Willoughby, Kangaroo Island, 1 quite fresh; in 49 fathoms off Beachport, 1 large and good.

When fullgrown it may be 20 mm. long by 6·25 broad, and has a callus pad about 3 mm. long and 1 mm. high at its centre at the back of the internal lip; the posterior edge of the sinus is slightly reflected.

Drillia bednalli, Sowerby.

Drillia bednalli, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 25, pl. iii., fig. 3. *Type locality*—"Gulf St. Vincent (Verco)"; Tate and May, Proc. Linn. Soc., New South Wales, vol. xxvi., 1901, p. 368, who regard it as a variety of *D. woodsi*, Beddome.

Although it varies a good deal, as Sowerby points out, it does not seem to me to grade into *D. woodsi*, but to retain a valid spiral lira midway between the angle and the suture, and some fine spiral striæ between the angle and the suture.

Dredged alive in 17, 20, and 22 fathoms in Investigator Strait; and dead at depths from 6 to 22 fathoms in Gulf St. Vincent, Spencer Gulf, in and outside Backstairs Passage. Taken on the beach, and alive in 15 to 20 fathoms, Petrel Bay, St. Francis Island.

Drillia hecatorgnia, Verco.

Drillia hecatorgnia, Verco, Trans. Roy. Soc., South Australia, 1907, vol. xxxi., p. 215, fig. 3. *Type locality*—"104 fathoms, off Neptune Island."

Drillia hedleyi, n. sp. Pl. xxvi., fig. 6.

Shell solid, narrow, elongate-fusiform, of 9 whorls, including the protoconch of 3 convex smooth whorls, with a deep impressed suture. Spire-whorls convex, roundly angled

below the middle in the early whorls, above it in the later, slightly adpressed below the linear suture. Body-whorl concavely attenuate at the base. Aperture narrow elongate-oval, ending in a moderately long open canal, which expands slightly in front, bends a little to the left, and is barely recurved. Outer lip thick, sharp-edged, with a deep oblique posterior sinus of three-quarters of a circle, having a thickened reflected margin, and separated from the base of the whorl by a callous pad derived from the inner lip; then straightly convex, with a wide, very shallow excavation at the base of the canal. Inner lip complete, applied, smooth; columella long, nearly straight. Axial costæ are oblique, fading out above the angle, rounded, nearly as wide as the spaces, ten in the penultimate, absent from the base. The spiral liræ are crowded, fourteen in the penultimate, very close-set on the base, granulated by fine accremental striæ. Colour in a fresh cotype is dull-white, with faint-brown clouding between the ribs, and a faint-brown band above the suture and round the periphery of the body-whorl.

Dim.—Length, 18.6 mm.; of the body-whorl, 11 mm.; breadth, 4.5 mm.

Locality.—Type from 200 fathoms off Beachport. Dredged also in 90 fathoms off Cape Jaffa, 1 very good, 1 poor; in 104 fathoms 35 miles south-west of Neptune Islands, 10 good, immature, dead; in 110 fathoms off Beachport, 2 fresh, 3 good, 1 broken.

***Drillia trophonoides*, n. sp.** Pl. xxvi., figs. 3 and 4.

Shell solid, white, high, narrow, conical, with a blunt apex and rounded base; of $9\frac{1}{2}$ whorls, including a protoconch of $2\frac{1}{2}$ convex whorls, the first two smooth, the rest faintly subdistantly axially plicate, ending abruptly. Spire-whorls convex. Sutures distinct, subcanaliculate. Body-whorl short, roundly contracted at the base. Aperture roundly oval, widest behind, roundly contracted in front, constricted at its junction with the canal. Outer lip sharp, simple, scarcely inflected, convexly retreating from the suture to form a semi-circular sinus, then convexly antecurrent to a very slight anterior sinus at the constricted neck of the canal. Inner lip a thin, complete glaze; base roundly concave; columella straight, curved to the left in the canal, and slightly thickened on the outside of its anterior end. Narrow spiral cords, one-third as wide as their interspaces, increase from four in the first whorl to nine in the penultimate, and twenty-three in the body-whorl, and are minutely roughened by sub-lenticular accremental striæ.

Dim.—Length, 14·4 mm.; of body-whorl, 7·1 mm.; width, 5·2 mm.

Locality.—Type from 150 fathoms off Beachport, with 1 other; also taken in 55 fathoms off Cape Borda, 1 poor; in 104 fathoms off Neptune Islands, 4 good and 11 immature, all fresh; in 110 fathoms off Beachport, 2 moderate; in 130 fathoms off Cape Jaffa, 2 poor; in 200 fathoms off Beachport, 1 good.

Drillia saxea, Sowerby.

Drillia saxea, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., part 1, p. 25, pl. iii., fig. 4. *Type locality*—"Gulf St. Vincent (Verco)."

The type was a bleached dredged shell. Specimens taken since show an infrasutural spiral row of brown spots between the axial plicæ, spirally elongate. On the body-whorl are three faint continuous spiral brown bands, and very faint curved axial bands.

It is quite common as a deep-water form, and has been taken in 40 fathoms off Beachport, 31, many quite fresh and coloured; in 55 fathoms off Cape Borda, 9 coloured, 30 dead; in 90 fathoms off Cape Jaffa, 19 dead, some of them fairly fresh; in 104 fathoms off Neptune Islands, 73, a few fresh, mostly immature and opaque; in 110 fathoms off Beachport, 65, some quite fresh; in 130 fathoms off Cape Jaffa, 58, opaque or rolled; in 150 fathoms off Beachport, 16 decolourized; in 200 fathoms off Beachport, 1 fresh, 6 dead; in 300 fathoms off Cape Jaffa, 29 opaque. Their habitat seems to be from 110 to between 20 and 40 fathoms.

Drillia lacteola, n. sp. Pl. xxvi., fig. 5.

Shell thin, translucent-white, of 6 whorls, including the protoconch of 2 smooth convex whorls. Spire-whorls convex. Suture simple, narrowly margined. Body-whorl roundly contracted at the base; aperture elongate-oval, opening widely into a short canal. Outer lip simple, thin, crenulated outside; with a deep rounded posterior sinus near the suture, having a thickened and slightly erect edge, with a shallow excavation anteriorly where it is pinched to form the canal. Inner lip complete, applied, glazed, thin, thickened at the back to meet the margin of the sinus. Columella nearly straight. Spirals thin, seven in the penultimate, twenty in the body-whorl; faint accremental striæ minutely roughening the sculpture.

Dim.—Length, 4·8 mm.; of body-whorl, 3·1 mm.; breadth, 2·1 mm.

Locality.—Type from 90 fathoms off Cape Jaffa, with 22 others, good; in 130 fathoms, 21 good; also off Beachport

in 110 fathoms, 34 good; in 150 fathoms, 10 good; in 200 fathoms, 2 good; in 62 fathoms north-west of Cape Borda, 10 good and 4 immature.

Mr. Hedley, to whom this species was submitted, writes:—"Mr. May and I took this in 100 fathoms off Cape Pillar. I catalogued it (Records Austr. Mus., vol. vii., No. 2, 1908, p. 112) as *Drillia haswelli*, Hedley, but on reconsideration I should regard it as new." It is narrower than *D. haswelli*, its whorls are not angulated, the body-whorl is not so pyriform, and the spirals are much more valid.

Var. crebrespirata, n. var.

This shell is more solid and opaque, is 5.5 mm. long, its body-whorl is 3 mm., its breadth is 2.1 mm.; it has 15 spiral liræ in the penultimate and 50 in the body-whorl, crossed by crowded accremental striæ.

Two perfect individuals were taken in 49 fathoms off Beachport.

Var. sinusegens, n. var.

It is just like *lacteola* in size, shape, and sculpture, but that the aperture is not pinched anteriorly to form a canal, and there is no anterior sinus in the outer lip here. One perfect example was taken in 100 fathoms off Beachport.

***Drillia tricarinata*, Tenison-Woods.**

Drillia tricarinata, Tenison-Woods, Proc. Linn. Soc., New South Wales, ii., 1878, p. 265. *Type locality*—"45 fathoms, off Port Jackson Heads"; Hedley, Records Austr. Mus., iv., 1891, p. 23, fig. 3; Hedley, Memoirs Austr. Mus., iv., part 6, 1903, p. 389, fig. 104.

This shell varies much in shape and sculpture. There may be three sharp spirals on each of the four spire-whorls in a shell 8 mm. long, or two on the first and second spire-whorls, an intercalated third thread on the third whorl, and three on the fourth whorl. The shell may be shorter and more solid, with two very strong spirals on all the spire-whorls, and a weak intercalated thread on the fourth, with about twenty obsolete axial liræ on the second and third whorls, much less marked on the fourth. It may be short and wide, with only two spirals in the spire-whorls, but in the first and second, or first, second, and third whorls oblique axial liræ almost as valid as the spirals may cross and tuberculate these, and fade out in the later whorls. It may be a long narrow shell, only 2.5 mm. broad, with four spirals in each whorl, and with 16 oblique axial liræ like those in

the previous form; or it may be a shell of 10 mm. by 3.5 mm., with two spirals in the first two whorls, three in the second two, and four in the fifth whorls, with oblique narrow axial costæ, 17 in the penultimate, as valid as the spirals, tuberculating the intersections, and mildly coronating the uppermost spiral. Several of these might be regarded as distinct species did not intermediate forms reveal a complete gradation between them.

Dredged in 90 fathoms off Cape Jaffa, 5 moderate; in 110 fathoms off Beachport, 4 good; in 130 fathoms off Cape Jaffa, 1 alive, 22 good; in 150 fathoms off Beachport, 10 good; in 200 fathoms off Beachport, 5 good, 1 poor; in 300 fathoms off Cape Jaffa, 4 good, 23 poor and broken.

Drillia dilecta, Hedley.

Drillia dilecta, Hedley, Memoirs Austr. Mus., iv., part 6, 1903, p. 387, fig. 100. *Type locality*—"Port Stephens, New South Wales"; also Records Austr. Mus., vi., part 2, 1905, p. 42, "111 fathoms off coast of New South Wales."

Mr. Hedley writes:—"Certainly *D. dilecta*, Hedley; the variation is slight; your shell is a little larger, has a spiral more, and fewer weaker intercostal radial threads. All mine have a broken lip, and I now see for the first time the deep sinus which is typical, and to be added to the diagnosis."

An infrasutural valid lira limits posteriorly the labral sinus, which is bounded anteriorly by the most valid lira on the whorl; a very fine threadlet runs nearly midway between the two; the sinus is deep and rather narrow.

Dredged in 90 fathoms Cape Jaffa, 3 good, 8 immature; in 130 fathoms, 2 perfect and 2 poor; 300 fathoms, 1 poor; in 104 fathoms 35 miles south-west of Neptune Islands, 17 good, some of them immature; in 150 fathoms off Beachport, 1 perfect, 5 poor.

Var. parabola, n. var.

It differs from the type in having a much wider, more open, parabolic labral sinus; in having more numerous spirals on the whorls, 6 in the penultimate and 24 on the body-whorl; and in having six liræ instead of one between those which bound the labral sinus. Only two examples were taken—one in 90 fathoms off Cape Jaffa, and one in 200 fathoms off Beachport. Other specimens may establish it as a distinct species or confirm it as a variant.

Drillia cancellata, Beddome.

Mangelia cancellata, Beddome, Proc. Roy. Soc., Tasmania, 1883 (1882), p. 167. *Type locality*—"Kelso Bay, Tamar River, 17 fathoms."

Drillia cancellata, Beddome, Tate and May, Proc. Linn. Soc., New South Wales, vol. xxvi., 1901, p. 368, pl. xxiv., fig. 27.

Drillia telescopialis, Verco, Proc. Roy. Soc., South Australia, vol. xx., 1896, p. 222, pl. vii., fig. 1, a, b, c. *Type locality*—"Backstairs Passage."

Drillia pentagonalis, Verco, *loc. cit.*, pl. vii., figs. 2 and 2a, 1906, p. 298; Hedley, Records Austr. Mus. vi., part iv., "80 fathoms off Narrabeen."

Mr. W. L. May, of Tasmania, writes May, 1897:—"I have had an opportunity of examining the type specimens of *Mangelia cancellata*, Beddome. There are a number of specimens in the box, and they are very variable, ranging from your *D. telescopialis* to *D. pentagonalis*. There are several intermediate forms. I should consider that *M. cancellata* came about halfway between your species, and that they all belong to one very variable species, *M. cancellata*."

Dredged in 20 fathoms Investigator Strait, 1: in 35 fathoms off St. Francis Island, 1 dead, brown colour; in 55 fathoms off Cape Borda, several good; in 90 fathoms off Cape Jaffa, 1 perfect; in 110 fathoms off Beachport, 1 perfect, 1 broken; in 130 fathoms off Cape Jaffa, 2 perfect.

***Clathurella walcotæ*, Sowerby.**

Drillia walcotæ, Sowerby, Proc. Zool. Soc., London, 1893, p. 487, pl. xxxviii., figs. 7 and 8. *Type locality*—"Spencer Gulf"; also Proc. Mal. Soc., London, 1896, vol. ii., p. 24; var. *pallida*, "from MacDonnell Bay (Adcock)."

Dredged alive in 13 fathoms Spencer Gulf; 17 fathoms and 20 fathoms Backstairs Passage; and dead from 8 fathoms upwards; in 40 fathoms off Beachport, 3 quite fresh. Taken on the beach St. Francis Island, 2 good.

The foot is about half as long as the shell, truncated in front, pointed behind; white; the sole dotted abundantly with small orange-brown spots, larger and darker along the margins; upper-surface with brown spots as large as pins' heads, with a deep-purple-brown central dot, also at the junction with the body; muzzle dark-spotted; siphon light-brown, with small spots. Tentacles and eyes exactly like *Glyphostoma paucimaculata*, Angas. No trace of an operculum to be found; hence I have removed it from *Drillia* to *Clathurella*.

***Clathurella philomena*, Tenison-Woods.**

Clathurella philomena, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1875) 1876, p. 141. *Type locality*—"East coast of Tasmania"; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii., p. 177, "Victorian coast"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 371.

Drillia atkinsoni, Tenison-Woods, Proc. Roy. Soc., Tasmania, 1876, p. 142, *teste* Tate and May, *loc. cit.*

Siphonalia pulchra, Tenison-Woods, *op. cit.*, 1877, p. 139, *teste* Tenison-Woods, *op. cit.*, (1879) 1880, p. 70.

Clathurella crassina, Angas, Proc. Zool. Soc., London, 1880, p. 416, pl. xl., fig. 6.

Mr. Sowerby in Proc. Mal. Soc., London, 1896, vol. ii., p. 28, identified South Australian shells sent to him by me as *Clathurella parvula*, Reeve. This may be, but is not certain. Mr. Hedley has suggested their identity with *Drillia denseplicata*, Dunker, Malak. Blätt., 1871, vol. xviii., p. 159, from Bass Strait, figured in Conch. Cab. Küster's Ed., Band iv., Abt. iii., No. 130, p. 107, pl. xxiii., figs. 7 and 9. This is most likely, but as it is not certain I have retained the name accepted by Tate and May and Gatliff, until the types of the two species above referred to can be compared with our shells.

These are very commonly taken in deeper water, and they vary so remarkably that they might be differentiated into about half a dozen apparently good species but for the intermediate forms. It has been taken on the beach from Robe to LeHunte Bay in the Great Australian Bight, and dredged at all depths from 6 to 300 fathoms.

The usual form has a somewhat gradate spire, and has valid axial costæ crossed by well-marked spiral liræ. The axials may be less valid in a series of specimens until they completely vanish and only spirals remain, and the angle may fade away as well, until a shell of a seemingly distinct species remains, "exactly like the form taken in 100 fathoms at Cape Pillar" by Hedley and May. It may become long and narrow, and delicate, especially in the greater depths; or on the seashore, as on St. Francis Island, it may be very short, extremely solid, and with very rough, sturdy sculpture; or, again, from the greater depths it may be very short, very gradate, and with a comparatively long body-whorl and without axials, so as to approach close to *Drillia haswelli*, Hedley, and to be recorded by him as a variety of this species in his list of mollusca from Cape Pillar in Records Austr. Mus., vol. vii., No. 2, 1908, p. 112.

***Clathurella bicolor*, Angas.**

Clathurella bicolor, Angas, Proc. Zool. Soc., London, 1871, pl. i., fig. 20. *Type locality*—"Port Jackson"; *op. cit.*, 1880, p. 416, "recorded for South Australia"; Tryon, Man. Conch., 1884, vol. vi., p. 284, pl. xvi., fig. 61; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1900, vol. xii., p. 179, "Western Port."

Dredged alive from 5 fathoms to 22 fathoms in Gulf St. Vincent and in Spencer Gulf; in 40 fathoms off Beachport,

2 perfect, but rolled; in 45 fathoms off Neptunes, 1 good; in 55 fathoms off Cape Borda, 1 moderate; in 110 fathoms off Beachport, 1 very poor. Taken on the beach, west along our coast to Murat Bay, and St. Francis Island. About 25 fathoms would seem to be the limit of its deeper habitat.

Clathurella lallemantiana, Crosse and Fischer.

Pleurotoma (Clathurella) lallemantiana, Crosse and Fischer, Jour. de Conch., 1865, vol. xiii., p. 423, pl. xi., fig. 5. *Type locality*—"Rapid Bay, Gulf St. Vincent"; Tryon, Man. Conch., 1884, vol. vi., p. 286, pl. xvii., fig. 86, he makes it a variety of *C. letourneuxiana*, Crosse; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 28, who dissents from Tryon's opinion; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii., p. 177, "Port Phillip and Western Port"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 371, "Tasmania."

Drillia incrusta, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1876) 1877, p. 136. *Type locality*—"North coast of Tasmania," *teste* Sowerby, and Tate and May *loc. cit. supra*.

Dredged alive in 9 fathoms Port Lincoln; and in 5, 15, and 20 fathoms Gulf St. Vincent; in 200 fathoms off Beachport, 1 very poor. Taken on the beach Murat Bay, West Coast.

Clathurella letourneuxiana, Crosse and Fischer.

Pleurotoma (Clathurella) letourneuxiana, Crosse and Fischer, Jour. de Conch., 1865, p. 425, pl. xi., fig. 7. *Type locality*—"Sydney"; *Mangilia letourneuxiana*, Crosse, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1877) 1878, p. 28, "Tasmania."

Clathurella letourneuxiana, Crosse, Tryon, Man. Conch., 1884, vol. vi., p. 286, pl. xvii., fig. 87; Pritchard and Gatliff Proc. Roy. Soc., Victoria, (1899) 1900, p. 177, "Port Phillip and Western Port"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 371.

Dredged in Gulf St. Vincent, 17 quite fresh; in 110 fathoms off Beachport, 4 poor, and in 150 fathoms, 1 poor; in 130 fathoms off Cape Jaffa, 2 moderate, 1 poor. The examples from deep-water are uncoloured, the apex is not so acute (probably worn down), and the body-whorl is comparatively longer. Several specimens with the other characters typical of this species have the two revolving spirals of *C. lallemantiana*, Crosse.

Var. cuspis, Sowerby.

Mangilia cuspis, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 31, pl. iii., fig. 17. *Type locality*—"Gulf St. Vincent."

Mr. Sowerby says on page 32 of *M. letourneuxiana*, Crosse:—"I have no evidence that this species occurs in South Australia. Specimens of *M. lallemantiana* have been

mistaken for it." I am, however, disposed to think *M. cuspis* is a short-spined form of *M. letourneuxiana*, into which it seems insensibly to run, as the latter species is recognized by conchologists in Sydney, Melbourne, and Tasmania; and I am also disposed to believe Tryon is right in classing *M. lallemantiana* as a variety in the opposite direction.

Clathurella desalesii, Tenison-Woods.

Mangelia de Salesii, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1876) 1877, p. 138. *Type locality*—"Long Bay, Tasmania."

Clathurella desalesi, Tenison-Woods, Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 371, pl. xxiv., fig. 32.

Dredged in Gulf St. Vincent, 13 fresh; in 40 fathoms off Beachport, 1 good; in 110 fathoms, 2 good; in 130 fathoms off Cape Jaffa, 2 poor.

Clathurella st. gallæ, Tenison-Woods.

Mangelia st. gallæ, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1876) 1877, p. 137, with var. *benedicti*. *Type locality*—"Long Bay, Tasmania"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1906 (1905), vol. xviii., p. 50, "Western Port."

Dredged in 40 fathoms off Beachport, 19 good; in 110 fathoms, 4 very good, 3 moderate; in 150 fathoms, 1 poor; in 130 fathoms off Cape Jaffa, 6 good. This species would appear to affect the deeper water.

Clathurella modesta, Angas.

Clathurella modesta, Angas, Proc. Zool. Soc., London, 1877, p. 38, pl. v., fig. 15. *Type locality*—"Port Jackson"; Tryon, Man. Conch., 1884, vol. vi., p. 285, pl. xvii., fig. 92; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 28, "Gulf St. Vincent"; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii., p. 176, "Port Phillip and Western Port"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370, "Frederick Henry Bay, Tasmania."

Dredged in Gulf St. Vincent, 15 alive and dead; in 15 to 20 fathoms off St. Francis Island; in 40 fathoms off Beachport, 3 quite fresh and 2 moderate; in 55 fathoms north-west of Cape Borda, 3 moderate. Taken on the beach at Aldinga (Mr. Kimber) and at Venus Bay, West Coast.

A colour variety, with precisely the same shape and sculpture, is white with a brown spiral below the suture, and a second winding round the base and over the snout. Sometimes these spirals are represented only by distant spots. It was dredged in 40 fathoms off Beachport, 4 good; in 55

fathoms north-west of Cape Borda, 4 moderate; in 62 fathoms, 2 moderate; in 110 fathoms off Beachport, 30 fairly good; in 130 fathoms off Cape Jaffa, 17 poor. Taken on the beach at Venus Bay, 3 good; and on St. Francis Island, 4 good.

Clathurella rufozonata, Angas.

Clathurella rufozonata, Angas, Proc. Zool. Soc., London, 1877, p. 38, pl. v., fig. 13. *Type locality*—"Port Jackson."

This is the shell listed as *C. tincta*, Reeve, by Pritchard and Gatliff in Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii., p. 176, for Port Phillip.

Our species was submitted to Mr. Hedley, who wrote:—"Certainly not *C. tincta*, Reeve; see Hervier's discussion of that species, Jour. de Conch., vol. xlv., p. 90." I have not been able to consult this paper, so have preferred to retain the name by which the species was recorded in Adcock's list of the Aquatic Moll. of South Austr., 1893, No. 143.

Mangilia mitralis, Adams and Angas.

Bela mitralis, Adams and Angas, Proc. Zool. Soc., London, 1863, p. 420, No. 8. *Type locality*—"Port Jackson."

Bela australis, Adams and Angas, Proc. Zool. Soc., London, 1863, p. 420, No. 9; Angas *op cit.*, 1865, p. 159, "Aldinga and Rapid Bays."

Mangilia australis, Adams and Angas, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 31; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370, "Tasmania, common."

Mangilia mitralis, Adams and Angas, Pritchard and Gatliff, Proc. Roy. Soc. Victoria, (1899) 1900, vol. xii., p. 173, "Victorian coast."

Taken on the beach Kangaroo Island; Pondolowie Bay, Spencer Gulf; Venus Bay and St. Francis Island, Great Australian Bight. I have not dredged it in South Australian waters; it would seem to be a specially littoral form.

Mangilia tasmanica, Tenison-Woods.

Cithara tasmanica, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1875) 1876, p. 145. *Type locality*—"East coast of Tasmania."

Mangilia tasmanica, Tenison-Woods, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1900, vol. xii., p. 175, "Port Fairy (Rev. T. Whan)"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369.

Mangilia jacksoniensis, Angas, Proc. Zool. Soc., London, 1877, p. 37, pl. 5, fig. 10. *Type locality*—"Off Port Jackson Heads in 25 fathoms (Brazier)."

Daphnella jacksoniensis, Angas, Tryon, Man. Conch., vol. vi., 1884, p. 311, pl. 22, fig. 73.

Mangilia alternata, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1878) 1879, p. 39; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369.

Dredged in from 14 to 26 fathoms in Gulf St. Vincent and Investigator Strait; in Encounter Bay in about 5 fathoms (W. Reed). Taken on the beach of Banks Island, Spencer Gulf.

I think, probably, *M. tasmanica* grades from a long, narrow form with sharply-angulate whorls through *M. jacksonienseis*, and then through *M. mitralis* into *M. australis*, and forms one variable species.

Mangilia adcocki, Sowerby.

Mangilia adcocki, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 29, pl. iii., fig. 18; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, p. 174, "Western Port, etc."; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370, "North coast of Tasmania."

Mangilia bella, Adams and Angas, Proc. Zool. Soc., London, 1863, p. 419, pl. xxxvii., fig. 6 (*non* Hinds). *Type locality*—"Rapid Bay, St. Vincent Gulf."

Dredged in 14 and in 22 fathoms Investigator Strait and taken abundantly on the beach on Troubridge shoal, and of Antechamber Bay, Kangaroo Island.

Mr. Gatliff records its variations.

Mangilia gatliffi, n. sp. Pl. xxviii., fig. 9.

Shell small, white, solid, shining, elongate-oval, blunt, of 5 whorls, including a protoconch of 2 smooth convex whorls, and a very flatly convex apex. Spire-whorls sloping convex. Suture distinct, subcanaliculate, undulating, margined. Body-whorl nearly as long as the spire, slightly attenuated at the base and truncate. Aperture oval, slightly narrowed behind, wide in front, notched, without a canal. Outer lip straightly convex, with a shallow, wide sinus behind, sharp, not inflected, smooth within. Inner lip narrow, smooth, applied, free at the front, with a callus posteriorly at the junction with the outer lip. Columella subconcave, joining the body-whorl at a very open angle. Spiral sulcations equidistant, 9 in the penultimate, 17 in the body-whorl. Axial accremental striæ, distinct under the microscope, cross the spirals, sinuous, comparatively distant, especially on the body-whorl.

Dim.—Length, 5.25 mm.; of aperture, 2.25 mm.; breadth, 2.25 mm.

Locality.—Type from 17 fathoms Backstairs Passage, with 2 others; Gulf St. Vincent, 3 good; in 15-20 fathoms

St. Francis Island, 3 quite fresh; 35 fathoms, 1 dead; 55 fathoms off Cape Borda, several dead; 110 fathoms off Beachport, 2 dead.

Mangilia impendens, n. sp. Pl. xxvii., fig. 3.

Shell solid, white, of 7 whorls, including the blunt protoconch of 2 smooth depressed convex turns. Spire-whorls sloping, swollen above the linear somewhat undulating suture, and barely swollen below it. Base slightly contracted. Aperture oblong-oval, narrower behind, widely open in front, with a shallow notch. Outer lip simple, sharp, thickened by a marked varix outside, which ascends roundly at the suture and bounds a shallow, wide posterior sinus, profile convex, barely sinused anteriorly. Axial costæ roundly trigonal, sinuous, undulating the upper suture, most valid at the swelling of the whorl, half as wide as the interspaces, vanishing towards the base, and becoming obsolete towards the aperture. Very crowded spiral incisions all over, and still finer sinuous axial growth scratches, finely granulating the surface.

Dim.—Length, 6·4 mm.; of body-whorl, 4·4 mm.; breadth, 2·5 mm.

Locality.—Type dredged in Gulf St. Vincent, with 23 others: 14 fathoms off Ardrossan, 1 alive; in 24 fathoms off Newland Head, 1 dead.

Diagnosis.—It approaches *M. hexagonalis*, Reeve, but this is a longer shell, with a sharp three-whorled brown protoconch, and with straighter, narrower ribs, and much more numerous spiral incisions.

Mangilia hexagonalis, Reeve.

Pleurotoma hexagonalis, Reeve, Proc. Zool. Soc., London, 1845, p. 118; also Conch. Icon., 1845, pl. xxxii., sp. 293. *Type locality*—"Philippines."

Mangilia hexagonalis, Reeve, Tryon, Man. Conch., 1884, vol. vi., p. 251, pl. xx., figs. 1, 4; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 30, "Gulf St. Vincent."

Dredged in 9, 10, 12, 14, and 20 fathoms in Gulf St. Vincent and Spencer Gulf, alive, rare. Taken on the beach at Aldinga (Kimber).

Mangilia alticostata, Sowerby.

Mangilia alticostata, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 31, pl. iii., fig. 16. *Type locality*—"Gulf St. Vincent"; Hedley, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 17, "Port Jackson."

Dredged in 12, 14, 15, and 20 fathoms in Gulf St. Vincent, rather rare: taken in Wallaroo Bay (Dr. Gosse): in

the Port Adelaide Creek (Tate). Dredged in 15 to 20 fathoms off St. Francis Island, 1 good; in 24 fathoms off Newland Head, 1 moderate; in 40 fathoms off Beachport, 1 moderate; in 55 fathoms off Cape Borda, 1 moderate; in 110 fathoms off Beachport, 2 very poor, and in 150 fathoms, 1 very poor.

Mangilia (Glyphostoma) paucimaculata, Angas.

Glyphostoma paucimaculata, Angas, Proc. Zool. Soc., London, 1880, p. 416, pl. xl., fig. 7. *Type locality*—"Aldinga and Holdfast Bays (Tate)"; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 30; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369, "Pirate's Bay, Tasmania."

Dredged in Gulf St. Vincent, alive, and in Spencer Gulf. Taken on the beach at Streaky Bay. A living individual, from 7 fathoms, dredged at the entrance to Eastern Cove, Kangaroo Island, supplied the following:—"The foot is nearly as long as the shell, narrow, truncated in front, pointed behind. A close and perfect examination revealed no operculum. The siphon is one-half the length of the foot. Minute tentacles are borne at the ends of stalks, twice as wide and four times as long as themselves. These are white, and a black eye occurs at the end of the stalk outside the base of the tentacle. The foot is variegated with translucent and opaque white, disposed in rings, and the upper part of the foot and body and siphon are ornamented with minute orange dots."

Mangilia spica, Hedley.

Mangilia spica, Hedley, Records Austr. Mus., vol. vi., part 4, 1907, p. 297, pl. lv., fig. 20. *Type locality*—"80 fathoms off Narabeen, New South Wales"; Hedley and May, *op. cit.*, vol. vii., 1908, p. 112, "100 fathoms off Cape Pillar, Tasmania."

One good example was dredged in 40 and in 110 fathoms off Beachport, and in 90 and in 130 fathoms off Cape Jaffa.

Mangilia dyscritos, Verco.

Terebra dyscritos, Verco, Trans. Roy. Soc., South Australia, 1906, vol. xxx., p. 149, pl. iv., figs. 3, 4, 5.

Besides the localities given in the original description, it has been taken in 40 fathoms off Beachport, 5 quite fresh and 5 poor; in 55 fathoms off Cape Borda, 7 poor; and in 150 fathoms off Beachport, 4 poor. The largest specimen is 10 mm. long, and shows rusty axial flames, three in the body-whorl, and an obscure spiral of some four faint rusty blotches on the base, beginning at the middle of the inner lip. The generic and family location was doubtful when described, but the genus *Mangilia* among the Pleurotomidæ seems the most appropriate place at present.

Mangilia flaccida, Pritchard and Gatliff.

Mangilia flaccida, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1899, vol. xii., p. 102, pl. viii., figs. 3 and 4. *Type locality*—"San Remo, Western Port"; *ibid*, 1900, vol. xii., p. 175; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370, "Tasmania."

Dredged in Gulf St. Vincent, 1 perfect; in 40 fathoms off Beachport, 3 good: in 55 fathoms north-west of Cape Borda, 7 moderate. Taken on the beach at St. Francis Island, 8 good, and at LeHunte Bay, Great Australian Bight, 1 good. Identified by Mr. Gatliff.

Mangilia picta, Adams and Angas.

Mangilia picta, Adams and Angas, Proc. Zool. Soc., London, 1863, p. 419, pl. xxxvii., fig. 7. *Type locality*—"Port Jackson (and South Australia)"; Angas, Proc. Zool. Soc., London, 1867; Tryon, Man. Conch., 1884, vol. vi., p. 256, pl. xxii., fig. 72; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 29; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1890, vol. xii. (N.S.), p. 173, "Victorian coast"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370, "Tasmania."

Mangilia meredithia, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1875) 1876, p. 142. *Type locality*—"Bass Strait."

The variations of this species make it very worrying. The typical shell is easily recognized by its colour bands, its bold ribs, and its fine spiral incisions; but the ribs may diminish to the vanishing point, the shape may vary to a short, broad form or to a long, narrow shell, and the angulation may become a rounded shoulder.

The colour markings may disappear in turn, till the shell is quite white, or may become narrow and numerous, so as to band the whole body-whorl with thin brown lines, and approach *M. insculpta*, Adams and Angas, from which the brown apex and the more decided incisions of the latter distinguish it. The most persistent ornament is that referred to by Mr. Gatliff, the colour dashes immediately below the suture, which are frequently crescentic and correspond with the contour of the sinus. Another variation is a colouration of the lower half only of the base of the body-whorl.

Dredged from 8 to 22 fathoms in Gulf St. Vincent and Spencer Gulf, and off St. Francis Island; also good in 110 fathoms off Beachport, and moderate in 200 fathoms. Taken all along the coastline westward to Fowler Bay.

Mangilia insculpta, Adams and Angas.

Mangilia insculpta, Adams and Angas, Proc. Zool. Soc., London, 1863, p. 420, pl. xxxvii., fig. 8. *Type locality*—"Gulf St. Vincent"; Angas, *op. cit.*, 1865, p. 160; Tryon, Man. Conch., 1884, vol. vi., p. 256, pl. xxii., fig. 61.

Dredged in 15 and in 20 fathoms Gulf St. Vincent, Investigator Strait, and Backstairs Passage, several; in 62 fathoms north-west of Cape Borda, 4 immature and poor. Taken on the beach at Sceales Bay and St. Francis Island.

As Mr. May writes:—"It is closely related to *M. delicatula*, Tenison-Woods, in shape, but the latter has more pronounced ribs and spirals, especially on the body-whorl."

***Mangilia delicatula*, Tenison-Woods.**

Mangilia delicatula, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1878) 1879, p. 37. *Type locality*—"Long Bay, Tasmania"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369, pl. xxiv., fig. 35; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1907, vol. xx., p. 31, "6 to 8 fathoms Western Port."

Daphnella delicatula, Tenison-Woods, Tryon, Man. Conch., 1884, vol. vi., p. 302, pl. xxxii., fig. 29.

Dredged in 6 fathoms off St. Francis Island, 3 good, and in Gulf St. Vincent, 6 good. Taken on the beach at Aldinga (Mr. Kimber).

Mr. May confirmed my identification. The shell may be long and narrow to short and ventricose; the whole surface may be yellowish-brown, or the anterior half of the body-whorl may be light-brown, or there may be a white band just above the shoulder of the body-whorl. Tate and May give *M. cuspis*, Sowerby, as a synonym, but this is allied rather to *M. letourneuriana*, Crosse.

***Mangilia connectens*, Sowerby.**

Mangilia connectens, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 30, pl. iii., fig. 14. *Type locality*—"Gulf St. Vincent."

Dredged in 14 fathoms off Ardrossan, 4 very good; in 20 fathoms Gulf St. Vincent, 1 alive, 1 good; in 15 to 20 fathoms off St. Francis Island, 3 dead; in 55 fathoms north-west of Cape Borda, 8 moderate.

***Mangilia vincentina*, Crosse and Fischer.**

Mangilia vincentina, Crosse and Fischer, Journ. de Conch., 1865, vol. xiii., p. 422, pl. xi., fig. 6. *Type locality*—"Rapid Bay, Gulf St. Vincent"; Angas, Proc. Zool. Soc., London, 1865, p. 160; also 1877, p. 185, "dredged off Port Jackson Heads," etc.; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii. (N.S.), p. 174, "Victoria"; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 30.

Mangilia vincentiana, Crosse, Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369, "King Island, Tasmania."

Daphnella vincentina, Crosse, Tryon, Man. Conch., 1884, vol. vi., p. 311, pl. xvii., fig. 91.

Mangilia alucinans, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 29, pl. iii., fig. 12. *Type locality*—"Yankalilla Bay"; var. *ornata*, Sowerby, *loc. cit.*, pl. iii., fig. 13; Pritchard and Gatliff, *op. cit. supra*, p. 175, "Victorian coast"; Tate and May, *loc. cit. supra*, "Long Bay, Tasmania."

Mr. Sowerby says of *M. alucinans*:—"Shells of this species have been mistaken for *M. vincentina*, Crosse, and also for *M. lineata*, Reeve. The type of the former is a little plain brown shell, with very obscure bands of darker brown. It is more sharply angular, and the ribs are thinner than in *M. alucinans*."

Mr. Angas in P.Z.S., 1877, p. 185, records *M. vincentina* for New South Wales, and remarks:—"The figure given in the French Journal of this species is so bad, no one could recognize it. The shell is white, with a row of brown spots between the ribs a little below the sutures, and sometimes with a central band on the last whorl. Crosse figures it of a uniform brown colour." This figure seems to have excusably misled Mr. Sowerby as to the appearance of Crosse's type, and he calls it "a little plain brown shell." Crosse describes his shell as "lutescens," and Sowerby his as "straminea," both equal to "yellowish"; Angas says the former is white, and Sowerby says of the latter, "Some are nearly white." As to *M. vincentina* being a little shell, it is really described as 7 mm. long, which is half a millimetre longer than *M. alucinans*. Angas recognized Port Jackson shells as the species he had sent to Crosse from South Australia, and examples sent me from New South Wales by Mr. Hedley as *M. vincentina* are identical with the type and cotypes of *M. alucinans* returned to me by Mr. Sowerby. The type localities of the two species are practically the same, Rapid Bay and Yankalilla Bay being adjacent to each other in Gulf St. Vincent; and it is significant, too, that Mr. Sowerby says, "Among all the South Australian shells I have examined, none are quite conformable to Crosse's type of this species," and yet Angas and I dredged our specimens in almost the same spot.

In the collection of the late Professor Tate, which came into my possession, was a tray with rather more than 200 shells labelled *Mangilia vincentina*, St. Vincent Gulf. Of these nearly one-half were like Sowerby's type of *M. alucinans*, and the remainder were the stouter, more coloured form approaching his variety *ornata*. Angas in P.Z.S., London, 1880, p. 415, begins a paper thus:—"Several months ago I received from Professor Ralph Tate, of the Adelaide University, a small collection of marine shells obtained by him (mostly from shell-sand) on various beaches in St. Vin-

cent and Spencer Gulfs." It is most probable Mr. Angas was responsible for the identification of the examples from which Professor Tate named the specimens in his cabinet. There can be little doubt, therefore, that Mr. Angas and Professor Tate regarded as *M. vincentina*, Crosse, both the forms which Mr. Sowerby has described as *alucinans*.

An examination of the type and cotypes received from Mr. Sowerby, as well as many fresh dredged and beach specimens since obtained, lead to the conclusion that *M. alucinans*, Sowerby, is conspecific with *M. vincentina*, Crosse, and may be retained to indicate a variant in which the ribs are rounder and more solid, and the spiral liræ are finer and more crowded.

The species is very variable. With the same number of whorls some adults may be twice as long as others, and when of equal length may differ much in breadth and greatly in solidity. There may be only twelve prominent spirals over the body-whorl from the angulation to the notch, and between each of these there may be as many as twenty crowded striæ, or only six. Sometimes there are twenty equal prominent threads, with fewer threadlets intervening. The striæ between the primary spirals may be all of equal size, or of three distinct sizes; secondary ones in the middle of the spaces, tertiary between them, and very fine between these. In some cases the primaries may be not marked, and in others absent, the spirals being all equal or nearly so. Nearly all these differences may be found among the cotypes themselves.

As to colour markings, the boldest, most frequent, and persistent is the spiral row above the angle, with the transverse spots in the intercostal spaces. Next one in the middle of the body-whorl, then one between this and the snout, then one between the latter two, and then one between the former two. All these below the angle are on the ribs, and interrupted by the spaces, except in a very few examples, when they form a continuous spiral line, distinctly thinner in the interspaces. Rarely some individuals are also minutely dotted with brown all over the whorls, but most abundantly just below the sutures, and the intercostal spaces below the lowest spiral may have short-curved axial brown flames.

Dredged alive in Gulf St. Vincent from 5 to 22 fathoms, many alive; in 15 to 35 fathoms St. Francis Island, several; in 45 fathoms off Neptune Islands, 4 fresh; in 55 fathoms off Cape Borda, 19 moderate; in 62 fathoms, 11 moderate; in 90 fathoms off Cape Jaffa, 1 poor; and in 110 fathoms off Beachport, 1 poor. Taken on the beach as far west

as St. Francis Island and LeHunte Bay. The beach specimens are usually larger, and more solid and more fully coloured than the dredged shells. It affects the shallower waters.

Mangilia anomala, Angas.

Purpura (Cronia) anomala, Angas, Proc. Zool. Soc., London, 1877, p. 34, pl. v., fig. 1. *Type locality*—"25 fathoms outside Port Jackson Heads"; also 1880, p. 415, "South Australia"; Tryon, Man. Conch., 1884, vol. vi., p. 318.

Murex (Ocinebra) anomala, Angas, Tryon, Man. Conch., 1880, vol. ii., pp. 121 and 180, pl. xxxvi., fig. 422.

Mangilia anomala, Angas, Tate, Proc. Linn. Soc., New South Wales, 1890, vol. v., p. 131; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 31; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii. (N.S.), p. 174, "Victorian coast"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 369, "North coast Tasmania."

Dredged alive in 5 fathoms Gulf St. Vincent, 1; in 15 to 20 fathoms off St. Francis Island, 2; in 20 fathoms outside Backstairs Passage, 2; dead at various depths up to 22 fathoms in Gulf St. Vincent and Spencer Gulf; in 55 fathoms off Cape Borda, 1 very poor. Taken on the beach as far west as Sceales Bay. It appears not to live beyond about 25 fathoms.

Mangilia fallaciosa, Sowerby.

Daphnella (?) fallaciosa, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 26, pl. iii., fig. 7. *Type locality*—"Gulf St. Vincent (Verco)."

The author says:—"It is with some uncertainty that I place this with *Daphnella*." The type was immature, with the labrum thin; when adult this has quite a marked varicose thickening close to its border, though the individual may measure only 6·7 mm. instead of the typical 10 mm. The shells may be more solid and opaque than the type, though usually they are rather thin and diaphanous. Instead of the typical feeble sinuous axial plicæ on the upper three spire whorls only, which become obsolete on the fourth, these may be quite valid on four whorls, and to the border of the labrum, fading out on the base of the whorl. The protoconch, when the shell is alive or quite fresh, may be translucent white or brown, and large irregular rusty flames, blotches, and streaks may colour the shell.

Dredged in 15-20 fathoms off St. Francis Island, 2 good; in Gulf St. Vincent, 13 quite fresh or alive; in 40 fathoms off Beachport, 5 good; in 45 fathoms off the Neptune Islands, 3 good; in 55 fathoms off Cape Borda, 5 good; in 62 fathoms, 5 good; in 90 fathoms off Cape Jaffa, 18 moderate; in 110

fathoms off Beachport, 22 good; in 130 fathoms off Cape Jaffa, 1 very good; in 150 fathoms off Beachport, 9 good, showing the brown flames; in 200 fathoms off Beachport, 11 good; in 300 fathoms off Cape Jaffa, 9 very poor.

Daphnella brenchleyi. Angas.

Clathurella brenchleyi, Angas, Proc. Zool. Soc., London, 1877, p. 37, pl. v., fig. 12. *Type locality*—"Port Stephens."

Daphnella brenchleyi, Angas, Hedley, Memoirs Austr. Mus., iv., part 6, 1903, p. 391, fig. text 106, "41-50 fathoms off Cape Three Points, New South Wales."

Var. vercoi, Sowerby.

Daphnella vercoi, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 27, pl. iii., fig. 8. *Type locality*—"Backstairs Passage, 6 to 20 fathoms."

The type shell of this species is much more ventricose and comparatively of more delicate texture than *C. brenchleyi* from New South Wales, but shells returned to me by Mr. Sowerby as cotypes are indistinguishable from the New South Wales form in shape and sculpture, and have the same minutely spirally lirate protoconch, and grade into his type. I am compelled, therefore, to unite the two.

Dredged in 6, 9, 12, 15, 17, 20, and 22 fathoms in Gulf St. Vincent and Spencer Gulf, Investigator Strait, and Backstairs Passage.

Daphnella eburnea, Petterd.

Trophon eburneus, Petterd, Jour. Conch., 1884, vol. iv., p. 142. *Type locality*—"Tamar Heads"; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1897) 1898, vol. x. (N.S.), p. 258, "Western Port"; also *op cit.*, (1905) 1906, vol. xviii. (N.S.), p. 41.

Tritonidea eburnea, Petterd, Adcock, Handlist of Aquatic Moll. of South Australia, 1893, p. 4, No. 48.

Cantharus eburneus, Petterd, Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 357, text fig. 1.

Tate and May shifted this species from *Trophon* to *Cantharus*, but Pritchard and Gatliff objected to this location, yet felt doubt as to where it should be placed. I now suggest *Daphnella*. It has a closely spirally lirate protoconch like several species in this genus, the delicate lamelliform axials, which make a frill immediately below the suture, corresponding with a small round sinus there, and has fine, crowded spirals, and when alive is of delicate texture and comes close to *Daphnella brenchleyi*, and especially to *var. vercoi*, Sowerby. The objection urged to its location in *Cantharus*, which might be regarded as equally valid here, is its umbilicus; but is it not a false umbilicus? It is absent from young shells,

and is only a separation of the inner lip at its tip, from the sinistral twist of the extremity of the columella.

Dredged in 17 fathoms Backstairs Passage, 4 dead, moderate. Taken on the beach at Aldinga and at Fowler Bay, and on St. Francis Island.

Daphnella diluta, Sowerby.

Daphnella diluta, Sowerby, Proc. Mal. Soc., London, vol. 2, 1896, p. 26, pl. iii., fig. 6. *Type locality*—"Backstairs Passage, 20 fathoms (Verco)."

Dredged in Backstairs Passage, 17 fathoms, 4 dead; in 20 fathoms, 2 fresh, 8 dead; in 22 fathoms, 1 alive, 3 fresh, 4 dead; in Gulf St. Vincent, depth unrecorded, 6 moderate; in 55 fathoms off Cape Borda, 1 broken.

Daphnella inornata, Sowerby.

Mangilia inornata, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 30, pl. iii., fig. 15. *Type locality*—"Gulf St. Vincent."

Dredged alive in 22 fathoms Backstairs Passage; also many alive or dead in 15, 17, and 20 fathoms in Gulf St. Vincent; in 62 fathoms north-west off Cape Borda, 1 perfect, 2 good immature; in 90 fathoms off Cape Jaffa, 1 dead; in 110 fathoms off Beachport, 5 good.

I think this is a *Daphnella* from its light texture, fine cancellation, and sinus.

Daphnella fenestrata, n. sp. Pl. xxviii., figs. 6 and 7.

Shell delicate, white, of 5 whorls, including a rather blunt scarcely mamillate protoconch of 2 convex whorls, with 7 spiral liræ, ending abruptly at the first axial rib. Spire-whorls gradate, subconcavely sloping below the suture, with a sharp lira at the edge of the gradation; whorls contracting towards the lower suture; body-whorl contracted at the base; canal very short; aperture oblong-oval, outer lip thin, with ten liræ outside, which with the lip in profile project as minute spurs; sinus well marked from the suture to the angle; inner lip a narrow, opaque-white glaze: columella long, straightly convex. Sculpture bold, five spirals in the first and second whorls, including that at the angle, fourteen on the body-whorl, narrow, erect; axials, twenty in the penultimate, coronating the uppermost spiral with projecting points, and producing tiny tubercles as they cross the other spirals. Crowded axial threads, concave forwards, run from the simple suture to the angle.

Dim.—Length, 4 mm.; of the body-whorl, 2·8 mm.; breadth, 1·5 mm.

Locality.—Type in 62 fathoms north-west of Cape Borda, 10 good; in 90 fathoms off Cape Jaffa, 17 good and broken; in 104 fathoms 35 miles south-west of Neptune Islands, 3 good, 7 fragments; in 110 fathoms off Beachport, 6 good; and in 130 fathoms off Cape Jaffa, 2 good.

Variations.—There may be only three spirals in each spire-whorl, with less numerous axials. It may reach 6.5 mm. in length.

Daphnella fragilis, Reeve.

Pleurotoma fragilis, Reeve, Proc. Zool. Soc., London, 1845, p. 111, "*Habitat*—(?)"; Conch. Icon., 1845, pl. xxi., sp. 179; Angas, Proc. Zool. Soc., London, 1880, p. 416, "Aldinga Bay (Tate)"; Sowerby, Proc. Mal. Soc., London, 1896, p. 26, No. 10; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1906, vol. xviii. (N.S.), part 2, p. 51, "Western Port, Victoria, 7 fathoms."

Pleurotoma lymneiformis, Kiener, Reeve, Conch. Icon., 1846, pl. xxxv., fig. 325.

Pleurotoma lymneiformis, Kiener, Coq. Vivantes, p. 62, pl. xxii., fig. 3; var. *fragilis*, Reeve, Tryon, Man. Conch., 1884, vol. vi., p. 300, pl. xxvi., fig. 90.

Dredged at all depths from 9 to 20 fathoms; 3 from Newland Head, westward as far as St. Francis Island, but not in deeper water.

Daphnella stiphra, n. sp. Pl. xxv., figs. 5 and 6.

Shell fragile, short, biconic. Protoconch brown, of $4\frac{1}{2}$ whorls, the apical $1\frac{1}{2}$ with close spiral liræ, punctate between, the rest latticed by the crossing of two sets of crowded oblique liræ, whorls convex, sutures deep. Spire-whorls four, convex, roundly angled just below the centre; sutures deep. Body-whorl tumid, contracted at the base; aperture obliquely oval: outer lip thin, simple, broken; inner lip represented by a smooth, glazed area; columella straight, barely concave; canal short, open. Sinus at the suture, round, simple.

Sculpture.—In the concave space just below the suture are crowded very fine spirals, eight in the penultimate; below a prominent thread which bounds this space are more distant and stouter liræ, two in the first whorl, three in the second, four in the third, eight in the fourth, and about forty in the body-whorl. Axial threadlets concave forwards to the prominent spiral thread, and convex forwards thence to the suture, run in the body-whorl over the base to the canal.

Dim.—Length, 8.5 mm.; breadth, 4 mm.

Locality.—Type 300 fathoms off Cape Jaffa, dead; in 15 fathoms off Wallaroo, 1 moderate.

Daphnella perplexa, n. sp. Pl. xxviii., figs. 1 and 2.

Shell delicate, elongate-oval, of 6 whorls. Protoconch of two convex whorls, each with ten valid spiral liræ; apex blunt, ending abruptly, with the first spire-whorl issuing from within it. Spire-whorls four, convex, sutures linear. Body-whorl much longer than the spire, gradually contracting at the base. Aperture oblique, elongate-oval, canal short, wide, open, deviated slightly to the left. Columella straight, forming an obtuse angle with the inner lip, which is distinct, complete, applied, and glazed. Outer lip with a finely crenulated border; in profile retrocurrent at the suture to form a shallow sinus, then uniformly curved, convex, with a shallow excavation at the contracted base. The whole surface of the shell is sculptured with spiral liræ, six in the first whorl, twelve in the second, sixteen in the third, and fifty-two in the body-whorl, granulated by very fine axial striæ which granulate the sutural margin. Colour is somewhat mottled very light-brown, with spiral equidistant white hairlines, five in the penultimate, ten in the body-whorl.

Dim.—Length, 6·3 mm.; of body-whorl, 3·9 mm.; width, 2·2 mm.

Locality—Type 22 fathoms Backstairs Passage; off Point Marsden, Kangaroo Island, 15 fathoms, 1 dead; Yankalilla Bay and Gulf St. Vincent, depth unrecorded, 10.

D. fragilis, Reeve, has its protoconch latticed by crossing liræ, has a different shape, and wider-spaced stronger axials.

The length when adult, shown by the ascending suture, may be 4·7 mm. or 7·1. The colour may be wholly white, probably from bleaching.

Daphnella legrandi, Beddome.

Drillia legrandi, Beddome, Proc. Roy. Soc., Tasmania, (1882) 1883, p. 167. *Type locality*—"D'Entrecasteaux Channel, 7 fathoms.

Clathurella legrandi, Beddome, Pritchard and Gatliff, Proc. Roy. Soc. Victoria, (1899) 1900, vol. xii. (N.S.), p. 178, "Portland"; Hedley, Proc. Linn. Soc., New South Wales, 1900, p. 225, pl. xxv., figs. 1, 2, 3.

Tate and May, in Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 371, make it a synonym of *Clathurella sculptilior*, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1878) 1879, p. 38. Two gentlemen claim to have provided the author with the type and to possess the cotypes. One presents examples of *D. legrandi* as the cotypes; the other, who is cited by Woods as having supplied the type, distributes *C. desalesi*, Tenison-Woods. The weight of evidence is in favour

of the latter, and *D. legrandi* can scarcely be accepted. As the type cannot be found, and the shell has not been figured, it is preferable to ignore *C. sculptilior* and use the two names which are certain for the two species. Tate and May are followed by Hedley in Records Austr. Mus., vol. vi., part 4, p. 298, 1907, who calls the shell *Daphnella sculptior* [*sic*], Tenison-Woods.

Tate and May also make *Daphnella bitorquata*, Sowerby, a synonym of this shell (Proc. Linn. Soc., New South Wales, 1901, xxvi., p. 446), but it is really a variety of *Daphnella tasmanica*, Tenison-Woods.

Dredged at varying depths in Gulf St. Vincent and Backstairs Passage up to 20 fathoms, 30 dead and quite fresh: in 15 to 20 fathoms off St. Francis Island, 4 moderate, and in 35 fathoms, 1 moderate: in 40 fathoms off Beachport, 1 good and 4 poor: in 55 fathoms off Cape Borda, 4 poor: in 110 fathoms off Beachport, 5 moderate.

***Daphnella bastowi*, Gatliff and Gabriel.**

Daphnella bastowi, Gatliff and Gabriel, Proc. Roy. Soc., Victoria, 1908, vol. xxi. (N.S.), p. 365, pl. xxi., figs. 1 to 4. *Type locality*—"Western Port."

Dredged in Gulf St. Vincent, depth unrecorded, 7 examples.

***Daphnella tasmanica*, Tenison-Woods.**

Daphnella tasmanica, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1876) 1877, p. 138, "Tasmania"; Hedley, Proc. Linn. Soc., New South Wales, (1901) 1900, vol. xxiv., p. 725, fig. 21, and xxvi., (1901) 1902, p. 700; Tate and May, Proc. Linn. Soc., New South Wales, xxvi., 1901, p. 372; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1905) 1906, vol. xviii. (N.S.), part 2, p. 52, "Western Port, about 7 fathoms."

Var. *bitorquata*, Sowerby, Proc. Mal. Soc., London, vol. ii., 1896, p. 27, pl. iii., fig. 10, "Spencer and St. Vincent Gulfs (Adcock)."

This shell varies greatly—(1) In shape. The whorls may be quite round, or uniangulate or biangulate, depending on the strength of certain spirals. Some examples are much shorter and more ventricose than others: (2) in sculpture. The spirals may be nearly equal all over the shell, or unequal on the early whorls and equal on the body-whorl, or they may be alternately markedly large and small. The axials in some are as distant as the spirals, so as to make a square, open lattice, or very crowded, and this either on shells with equal and close or unequal and open spirals. In some the large spirals are nodulated, so that the shell, looked at from the apex, displays some ten or twelve angles, which may be opaque-white; (3) in colour. The shell may be uniformly

brown, or with square, distant brown blotches below the sutures, or more or less indistinctly mottled with brown, and with opaque white spots scattered about.

Dredged in Gulf St. Vincent at depths up to 23 fathoms, 14 alive or good; in 20 fathoms off Newland Head, 1 good; in 35 fathoms off St. Francis Island, 1 good. The South Australian shells favour the *bitorquata* variety rather than the typical *D. tasmanica*:

Daphnella lamellosa, Sowerby.

Clathurella lamellosa, Sowerby, Proc. Mal. Soc., London, 1896, vol. 2, p. 28, pl. iii., fig. 11. *Type locality*—"Gulf St. Vincent (Verco)"; Hedley, Proc. Linn. Soc., New South Wales, 1900, vol. xxv., p. 725.

Mr. Hedley, *loc. cit.*, supposes it to be an immature *Daphnella tasmanica*, Tenison-Woods, but the shape of the labral sinus is quite distinctive.

Dredged in Gulf St. Vincent up to 22 fathoms, several alive and dead; in 15 to 20 fathoms off St. Francis Island, 1 dead; in 90 fathoms off Cape Jaffa, 2 perfect; in 104 fathoms 35 miles south-west of the Neptunes, 42 good and broken; in 110 fathoms off Beachport, 1; and in 130 fathoms off Cape Jaffa, 1 dead.

Daphnella triseriata, n. sp. Pl. xxviii., fig. 8.

Shell of 6 whorls, including the protoconch of 2 whorls, with an exsert apex, closely spirally lirate. When viewed from the apex, the contour of the spire-whorls is not uniformly curved, but polygonal, septangulate in the type. They have a central angulation, provided with a stout, rounded cord, and are constricted at the linear sutures. In the first and second spire-whorls a smaller secondary lira arises above the angle and another below; in the third whorl another tertiary and still smaller lira is intercalated above, and another in each interval below. In the body-whorl, below these, arising at the suture is a stout cord forming a second angulation, below which the base is markedly concavely constricted, and has about ten liræ, diminishing in size anteriorly. The aperture is obliquely oval, narrowed behind. Columella straightly convex. Outer lip thin, simple, crenulated, and toothed by the spirals; with a deep, narrow posterior sinus, bounded on one side by the sutural lira, and on the other by the nearest secondary lira; in profile the lip is convex. Very fine crowded axial striæ, corresponding with the sinuosity of the outer lip, cross the whole surface except the primary spirals.

Dim.—Length, 4.6 mm.; of the body-whorl, 2.4 mm.; breadth, 2.4 mm.

Locality.—Type 110 fathoms off Beachport, with 6 others, good; in 130 fathoms off Cape Jaffa, 3 very good, and in 90 fathoms, 6 good, but small.

***Daphnella bathentoma*, n. sp. Pl. xxviii., fig. 3.**

Shell small, white, thin, of 5 whorls, including the prominent conical protoconch of 2 convex elate whorls, with exerted apex. Spire-whorls have a corded obtuse angulation, with a slope from the upper suture, somewhat constricted towards the lower. Body-whorl with a second angulation starting from the suture at the aperture; below this the base is rapidly concavely contracted. Aperture obliquely oval. Canal short. Outer lip thin, simple, biangulate; with a deep, narrow sinus at the suture with parallel margins; in profile slightly convex to the front angulation, then concave to the edge of the canal. Columella very long, nearly straight. When looked at from the apex the shell is faintly polygonal, with ten angles in a spiral (in a cotype these are produced into transverse sharp tubercles). A single spiral runs between the angulation and the upper suture, and in the body-whorl bounds the front of the posterior sinus. Another lies midway between the angulation and the lower suture. In the suture, the second angulation of the body-whorl may appear as a sutural cord. This bounds the back of the posterior labral sinus. Axials concave forward run from the suture to the nearest spiral, then straight and very obliquely from this to the first angle, then vertically to the next angle, and are lost on the base: they do not cross the spirals or stand erect.

Dim.—Length, 2.8 mm.; of the body-whorl, 1.8 mm.; breadth, 1.45 mm.

Locality.—Type from 104 fathoms 35 miles south-west of Neptune Islands, with 10 others good, all dead.

***Daphnella minuta*, Tenison-Woods.**

Drillia minuta, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1876) 1877, p. 136. *Type locality*—"Long Bay, Tasmania."

Daphnella minuta, Tenison-Woods, Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 372.

Daphnella (Teres) mimica, Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 27, pl. iii., fig. 10. *Type locality*—"Gulf St. Vincent (Verco)"; also var. *fusca*, *loc. cit.*

Daphnella mimica, Sowerby, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1905) 1906, vol. xviii., part 2, p. 52, "Western Port, about 7 fathoms."

Dredged in Gulf St. Vincent, under 22 fathoms, 20 alive, 9 dead; in 17 fathoms Backstairs Passage, 1 alive; in 15-20 fathoms off St. Francis Island, 1 alive; in 35 fathoms, 1 alive, 2 dead; in 45 fathoms off Neptune Islands, 1 dead; in 90 fathoms off Cape Jaffa, 2 dead, immature; in 104 fathoms 35 miles south-west of Neptune Islands, 2 good, dead.

Another variety which may be called *marmorata* is beautifully marbled with flames of white and deep blackish-brown.

Daphnella excavata, Gatliff.

Daphnella excavata, Gatliff, Proc. Roy. Soc., Victoria, 1906, vol. xix. (N.S.), p. 1, pl. i., figs. 1 and 2. *Type locality*—"Port Phillip"; Hedley, Proc. Linn. Soc., New South Wales, 1907, vol. xxxii., p. 507, "in 17-20 fathoms off Mast Head Island, Queensland"; Hedley and May, Records Austr. Mus., vol. vii., No. 2, 1908, p. 112, "in 100 fathoms off Cape Pillar, Tasmania."

Dredged in 22 fathoms outside Backstairs Passage, 11 examples. Identified by Mr. Gatliff.

Cythara compta, Adams and Angas.

Cithara compta, Adams and Angas, Proc. Zool. Soc., London, 1863, p. 419, pl. xxxvii., fig. 5. *Type locality*—"New South Wales"; 1865, p. 160, "dredged Rapid Bay, Gulf St. Vincent"; 1867, p. 204; Sowerby, Proc. Mal. Soc., London, 1896, vol. ii., p. 31; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, (1899) 1900, vol. xii. (N.S.), p. 176, "Victoria"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370, "Tasmania."

Daphnella, etc., Tryon, Man. Conch., 1884, vol. vi., p. 306, pl. xxv., fig. 49.

Daphnella varix, Tenison-Woods, Proc. Roy. Soc., Tasmania, (1876) 1877, p. 10. *Type locality*—"Tamar Heads, Tasmania."

Dredged alive at all depths from 9 to 20 fathoms in Gulf St. Vincent and Spencer Gulf, and in our two Straits; only 1, and that very poor, dredged in 40 fathoms off Beachport. It is taken on the beach on St. Francis Island, and has been sent to me from Rotnest Island, in Western Australia. It is a comparatively common shell in South Australia.

Cythara kingensis, Petterd.

Daphnella kingensis, Petterd, Jour. Conch., 1879, vol. ii., p. 102. *Type locality*—"King Island, Tasmania"; Tate and May, Proc. Linn. Soc., New South Wales, 1901, vol. xxvi., p. 370; Hedley and May, Records Austr. Mus., vol. vii., No. 2, 1908, p. 112, "100 fathoms off Cape Pillar, Tasmania."

Cithara cognata, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1899, vol. xii., p. 103, pl. viii. *Type locality*—"5 fathoms Western Port"; Tate and May, *loc. cit.*, affirm its identity.

Mangilia emina, Hedley, Records Austr. Mus. vol. vi., part 2, 1905, p. 53, fig. 20. *Type locality*—"111 fathoms off Cape Byron, New South Wales."

Mr. Hedley, who has seen my series, regards his type as a micromorph of *C. kingensis*, and withdraws his species.

It is very variable. It may be 16 mm. long, as in the type of *C. cognata*, 11 mm. as in *M. emina*, or 5.75 mm. as in some adult examples of mine. In shape it may be long and narrow, or short and broad. In sculpture it may have axial ribs, well marked, narrow, almost lamelliform, or round and solid, or low, or quite obsolete, especially on the body-whorl. The spiral liræ may be quite valid, or revealed only by a fairly high power of the microscope; generally the spirals are best marked when the axials are small. The colour may be a uniform brown tint, or there may be spiral colour bands of different widths, or the shell may be white.

Dredged in 15-20 fathoms off St. Francis Island, 1 nearly adult; in 40 fathoms off Beachport, 11 good: 55 fathoms north-west of Cape Borda, 1 good, 2 poor; in 90 fathoms off Cape Jaffa, 2 immature: in 104 fathoms 35 miles off the Neptunes, 19 good, 35 immature; in 110 fathoms off Beachport, 2 good, 3 moderate: in 130 fathoms off Cape Jaffa, 5 perfect, 5 immature: in 150 fathoms off Beachport, 3 moderate; in 200 fathoms, 6 good, 4 poor: in 300 fathoms off Cape Jaffa, 4 immature. It appears not to inhabit our shallower waters, but to be fairly evenly distributed, though rare from 40 to 300 fathoms.

Borsonia ceroplasta, Watson.

Borsonia ceroplasta, Watson, Chall. Repts. Zool., 1886, vol. xv., p. 368, pl. xviii., fig. 2, "North of Culebra Island, West Indies, 390 fathoms, *Pteropod* ooze."

Dredged in 300 fathoms off Cape Jaffa, 1 dead shell. It differs from the type in that its spire is proportionally not quite so long, and no obsolete flat spirals are visible above the suture and winding round the base. The nucleus, suture, infrasutural pad, angulation, tubercles, generic fold on the columella, canal, labral sinus (as well as can be determined from the description and figure) are identical. As only one specimen has been taken, and this immature, of six whorls only instead of eight, and a dead though well-preserved example, and as the members of the Pleurotomidæ show very wide specific variations, it is probably only a variant, and is provisionally so recorded. This is a new genus for South Australia.

Mitromorpha alba, Petterd.

Columbella alba, Petterd, Jour. Conch., vol. ii., 1879, p. 104. *Type locality*—"Blackman's Bay, Tasmania."

Mitromorpha alba, Petterd, Tate, Proc. Roy. Soc., New South Wales, 1898, p. 397; Tate and May, Proc. Linn. Soc., New South

Wales, 1901, vol. xxvi., pp. 372 and 455; Hedley, *op. cit.*, 1905, vol. xxx., p. 534; Records of the Austr. Mus., vol. vi., part 4, p. 298, "80 fathoms off Narrabeen."

M. flindersi, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, vol. xii. (N.S.), p. 104, pl. viii., fig. 6, "Western Port"; *op. cit.*, vol. xviii., 1905, p. 51.

Dredged in Gulf St. Vincent, 16 good and moderate; in 40 fathoms off Beachport, 10 good, 4 moderate; in 55 fathoms off Cape Borda, 3 perfect, 17 good; in 60 fathoms off Cape Borda, 8 very poor; in 90 fathoms off Cape Jaffa, 2 very poor; in 110 fathoms off Beachport, 3 very good, 12 poor; in 130 fathoms off Cape Jaffa, 1 good, 8 very poor; in 200 fathoms off Beachport, 1 poor. It would seem to live up to about 110 fathoms. Taken on the beach St. Francis Island, good.

Some shells are much more solid and ventricose than others.

Mitromorpha alba, Petterd. *Var. axiscalpta*, var. nov.

It has the shape of *M. alba*, Petterd, but has crowded axial incisions granulating the spirals. It has also three spiral rows of small, square brown spots on the body-whorl; one just below the suture, but not on the first spiral as in some of the typical *M. alba*; a second starting just above the aperture and winding round to just above the middle of the labrum; a third beginning just above the two nodules on the labium and running over the back of the snout. The upper two rows appear in the spire-whorls. Sometimes the shell is flamed with very light-brown between the spots axially.

Dredged in Gulf St. Vincent, 10 good, 2 poor; in 55 fathoms off Cape Borda, 10 good, 37 poor; in 110 fathoms off Beachport, 6 poor.

Mitromorpha angusta, n. sp. Pl. xxvii., figs. 4 and 5.

Shell fusiform, narrow, of 6 whorls, including the protoconch of 2 smooth convex whorls, with simple suture. Spire-whorls convex, with simple suture; body-whorl tapering anteriorly. Aperture narrowly oval, scarcely contracted behind, widely open in front, no canal, only channelled; outer lip thin, simple, uniformly convex in profile, no distinct sinus posteriorly; inner lip slightly thickened on the straight columella, with two faint plaits or nodules. Colour white, with a spiral row of some seven brown spots, showing just above the suture, and winding to the middle of the labrum.

Dim.—Length, 5·7 mm.; of the body-whorl, 3·8 mm.; breadth, 2·1 mm.

Locality.—Type from 110 fathoms off Beachport, with 3 others very good; in 55 fathoms off Cape Borda, 3 good; in 200 fathoms off Beachport, 1 good.

It is much more attenuate than *M. alba*, Petterd, and has only the one suprasutural row of spots. It may possibly be an extreme variant.

Mitromorpha incerta, Pritchard and Gatliff.

Mangilia incerta, Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1902, vol. xiv. (N.S.), part 2, p. 181, pl. ix., fig. 1 (rather poor); *ibid*, *op. cit.*, 1906, vol. xviii., p. 50, "Western Port."

To the author's definition I may add that the protoconch is conical, of three whorls, subconvex, suture shallow, whorls minutely granulated in spiral rows, fifteen in the third whorl. The length is 4.1 mm.; of the body-whorl, 2.8 mm.; and breadth, 1.6 mm.

Dredged in Gulf St. Vincent and Backstairs Passage, depth not noted, 17 fresh and dead; in 15 to 20 fathoms off St. Francis Island, 2 very poor; in 35 fathoms, 2 poor; in 62 fathoms north-west of Cape Borda, 1 good and 3 poor; in 90 fathoms off Cape Jaffa, 1 poor; in 104 fathoms off Neptune Islands, 1 poor.

I have called it a *Mitromorpha* rather than a *Mangilia*, although it has no visible labial nodules or plaits, because it seems very closely allied to *M. alba*, var. *axiscalpta*, above described.

Mitromorpha axicostata, n. sp. Pl. xxviii., fig. 4.

Shell solid, elongate-oval, of 6 whorls, including the pointed protoconch of $2\frac{1}{2}$ smooth convex whorls. Spire-whorls slightly convex. Suture simple, margined by a flat, narrow band. Base moderately contracted. Aperture elongate-oval, slightly constricted into a short, open canal. Outer lip thin, simple, convex in profile, with a shallow, wide depression just below the ascending suture. Inner lip complete, an applied thin glaze, callous at the suture. Columella long, nearly straight, slightly prominent at junction with concave base of body-whorl. No definite plait. Oblique rounded axial costæ, as wide as the interspaces, absent from the base, and vanishing towards the aperture. Spiral liræ flatly convex, wider than their spaces, cross the ribs, nine in the penultimate, twenty-five in the body-whorl.

Dim.—Length, 4.9 mm.; of the body-whorl, 2.4 mm.; breadth, 2.1 mm.

Locality.—Type from 104 fathoms 35 miles south-west

of Neptune Islands, with 9 good and 24 poor; also in 40 fathoms off Beachport, 3 fresh; in 90 fathoms off Cape Jaffa, 1 good, 3 poor; in 110 fathoms off Beachport, 1 good, 1 poor; in 130 fathoms off Cape Jaffa, 3 moderate.

When fresh there is a walnut-coloured band over the middle third of the body-whorl, less extensive in the intercostal spaces. This appears above the suture in the spire-whorls; the costæ are dotted above, and there are curved axial lines of dots on the liræ at the base. The size may reach to—Length, 7.3 mm.; of the body-whorl, 3.6 mm.; breadth, 3 mm. The ribs in the longer form may be much narrower, and may be obsolete before reaching the body-whorl.

This species approaches very close to *Mangilia*, and may belong to that genus.

Mitromorpha paula, n. sp. Pl. xxviii., fig. 5.

Shell, minute, solid, of $4\frac{1}{2}$ whorls, including a blunt protoconch of 2 whorls, which are convex and apparently smooth, but microscopically granular, separated by a linear suture; it ends abruptly, and from within it issue the spirals of the first spire-whorls. Perfect specimens show the granules in very close-set spiral rows. Spire-whorls slightly convex, with eight spiral liræ. Sutures simple. Body-whorl large, tapering anteriorly. Aperture elongate-oval, rather widely open in front; outer lip simple, crenulated outside by the sculpture, slightly convex in profile, with a minute round, shallow sinus close to the suture; inner lip is a complete narrow glaze; there are twenty-three spiral liræ, flat-topped, half as wide as the interspaces, axially faintly incised. Colour is cinnamon-brown, lighter in a band on the prominence of the whorls.

Dim.—Length, 3 mm.; of the body-whorl, 2.1 mm.; breadth, 1.35 mm. A second example is 3.8 mm. by 1.5 mm.

Locality.—Type from Gulf St. Vincent, depth unrecorded, with 70 others in good and moderate condition; in 22 fathoms Backstairs Passage, 4 alive, 5 dead.

It is not unlike *Pleurotoma (Thesbia) eritima*, Watson, Chall. Repts. Zool., 1886, vol. xv., p. 329, pl. xxiii., fig. 2, but is larger and has spirals half, instead of twice, as wide as the grooves.

Var. leuca, n. var.

This is quite white, and is generally rather narrower than the type of *paula*.

Dredged in 20 fathoms Investigator Strait, 1 good; in 45 fathoms north of Neptune Islands, 1 good; in 49 fathoms

off Cape Jaffa, 1 good and 1 very good, with a spiral row of distant brown spots in the spire-whorl, extending round the body-whorl; in 62 fathoms north-west of Cape Borda, 3 very good, 9 good; in 90 fathoms off Cape Jaffa, 2 good; in 104 fathoms 35 miles south-west of Neptune Islands, 3 good; in 110 fathoms off Beachport, 1 quite fresh, with some brown staining in the middle third of the outer lip; in 130 fathoms off Cape Jaffa, 1 poor.

These seem to affect deeper water than the type.

Mitromorpha paucilirata, n. sp. Pl. xxvii., figs. 8 and 9.

Shell elongate-oval, of 5 whorls, including a blunt protoconch of 2 convex whorls, apparently smooth, but microscopically minutely punctate from crowded spiral and axial liræ; the latter become more conspicuous just before the abrupt termination of the protoconch; suture simple, impressed. Spire-whorls convex, suture distinct, bounded below by a round spiral. Body-whorl oval, tapering anteriorly; base very faintly excavate. Aperture oblique, narrowly oval; outer lip thin, simple, corrugated by the spirals, convex in profile, with a shallow, round sinus near the suture; inner lip a glaze, thicker on the columella, which is straight and forms a round, open angle with the slightly concave base of the whorl. There are four spirals in the first whorl, five in the second, and seventeen in the body-whorl, becoming crowded towards the snout, about one-third the width of the concave interspaces, which are well roughened (and the spirals slightly so) by crowded fine distinct oblique axial liræ. The spirals are opaque-white in colour, and are faintly articulated with tiny brown subdistant spots; the labrum is brown-stained outside. In some examples there is a row of brown blotches in each whorl, running round the body-whorl to a little above the middle of the labrum.

Dim.—Length, 4 mm.: of the body-whorl, 2·3 mm.; breadth, 1·7 mm.

Locality.—Type dredged in 90 fathoms off Cape Jaffa, with 17 good ones and 28 moderate; in 62 fathoms off Cape Borda, 2 good; in 104 fathoms off Neptune Islands, 7 good and 8 moderate; in 110 fathoms off Beachport, 1 good.

It resembles *M. angusta*: but this is longer and has eight spirals in the penultimate and twenty-eight in the body-whorl. It differs from *M. paula*, var. *leuca*, in having fewer spirals, more convex whorls, in an excavate depression below the spiral which bounds the suture, and in the more convex whorls and deeper suture of the protoconch.

Var. crassilirata, n. var.

This is slightly larger, 4.5 mm. long and 1.7 mm. broad, and more solid, with the same number of spirals, but these are much stouter, the infrasutural cord being specially round and conspicuous.

Dredged in 55 fathoms off Cape Borda, 1 very good.

Mitromorpha pallidula, Hedley.

Mitromorpha pallidula, Hedley, Proc. Linn. Soc., New South Wales, 1905, vol. xxx., part 4, p. 534, pl. xxxii., fig. 26, "Manly Beach, near Sydney," also "24 fathoms off Derwent River, Tasmania": Gatliff, Proc. Roy. Soc., Victoria, 1907, vol. xx. (N.S.), part i., p. 32, "Port Albert."

Dredged in 35 fathoms off St. Francis Island, 1 alive; in 62 fathoms off Cape Borda, 1 moderate; in 90 fathoms off Cape Jaffa, 2 poor; in 130 fathoms off Cape Jaffa, 8 good; in 110 fathoms off Beachport, 6 good.

Natica sticta, n. sp. Pl. xxix., figs. 4, 5, and 6.

Shell solid, ovately-globose, of $3\frac{1}{2}$ whorls. Spire scarcely raised, whorls flatly convex. Suture distinct, linear. Aperture semi-circular; outer lip thin, simple. Inner lip distinct, raised into a callous pad, which, with that of the straight columella, almost completely fills the large umbilicus. In young shells the umbilicus is wide, open to the apex, and with a spiral funicle winding up to the middle of the columella. Surface shining and smooth, but for sublenticular accretional scratch-lines, most marked at the border of the umbilicus. There are three spiral rows of brown marks, axially elongate, and somewhat zigzag.

Dim.—Length, 8.5 mm.; breadth, 7 mm.; height, 5.25 mm.

Locality.—Type from 130 fathoms Cape Jaffa, with many others quite fresh. Dredged also in 16 fathoms outside Backstairs Passage, 3 good; in 17 fathoms Gulf St. Vincent, 5; in 40 fathoms off Beachport, 26 good; in 45 fathoms east of North Neptunes, 4; in 55 fathoms off Cape Borda, 15 dead, also in 62 fathoms, 29 minute; in 110 fathoms off Beachport, 60; and in 150 fathoms, 1 fresh.

As no individual was taken alive to provide an operculum, the genus is not certain; but I think it will prove to be a *Natica* with a shelly operculum. Some shells have an additional ornament in a dull-brown infrasutural continuous band.

Eunaticina albosutura, n. sp. Pl. xx., figs. 10 and 11.

Shell flatly globosely obliquely oval, of 4 whorls, including a protoconch of 2 smooth, flat whorls, ending abruptly. Spire-whorls rapidly increasing; spire flatly round, apex scarcely exsert. Suture linear, slightly descending at the aperture. Aperture obliquely semi-circular. Outer lip curved, less behind than in front, thin, simple, scarcely retiring at the suture. Inner lip distinct, short, opaque-white, thick, with a marked triangular callus joining it to the outer lip, just within the margin of which is a shallow gutter running to the suture. Columella long, straight, slightly reflected over the umbilicus behind, narrower in front, curving into the basal lip at rather more than a right angle. Umbilicus very open to the apex, with a central broad, low spiral funicle running into the middle of the columella. Sublenticular, minutely wavy, axial and spiral scratch-lines. Colour light-yellowish-brown, with a central white spiral, and a gradually widening infrasutural white band, corresponding with the labial callus. Operculum horny, paucispiral, nucleus towards the inner front part. In life there is a thin epidermis; the animal can completely retract within the shell.

Dim.—Length, 18 mm.; width, 12.5 mm.; height, 9 mm.

Locality.—Type from 25 fathoms Thorny Passage; in 15 to 20 fathoms Investigator Strait, 2 recent; in Gulf St. Vincent, depth unrecorded, several alive and dead.

Diagnosis.—The species is closely allied to *Natica umbilicata*, Quoy and Gaimard, or *Naticina picta*, Reeve; but is somewhat heavier, with a rather less prominent spire, and with a much thicker callus in the back of the aperture. When lying on its base with the anterior part of the aperture towards the observer, the shell has a greater vertical slope towards the right, and does not look so round; and when the base is upwards and the apex away from the observer, the umbilicus is more largely visible.

Vanikoro denselaminata, n. sp. Pl. xxix., figs. 1, 2, and 3.

Shell small, delicate, dull-white, globosely oval of $3\frac{1}{2}$ whorls. Protoconch one whorl and a half, apex exserted, with three bold spiral ribs, ending abruptly. Sutures deep. Spire-whorls convex, rapidly increasing; with erect axial lamellæ, close set and becoming progressively more crowded. No spirals. Umbilicus large, perspective, with crowded oblique axial striæ, and a bold, twisted carina winding down its whorls, and outside this a furrow which gets wider and shallower on the base of the shell. Aperture oval, truncated

at the base. Inner lip a glaze on the body-whorl. Columella very long, straight. Basal lip straight, joining the columella at a right angle, and the uniformly-curved outer lip at a rounded obtuse angle.

Dim.—Length, 3·2 mm.; breadth, 2·1 mm.

Locality.—Type Gulf St. Vincent, depth unrecorded, with 2 others: Venus Bay beach, 1.

Trophon segmentatus, n. sp. Pl. xxiv., fig. 3.

Shell fusiform of 7 whorls, including a protoconch of 2 smooth convex whorls, with a deep suture. Spire-whorls boldly angled above the middle, and constricted towards the simple suture. Base gradually contracted to a moderately long snout. Aperture roundly oval, opening abruptly in front into a canal of equal length, slightly deviated to the left, and not recurved. Outer lip thin and corrugated; inner lip a complete, prominent, erect lamella. Sculpture elaborate: axial laminae, twelve in the penultimate, rather solid, imbricating, coronating the angle with rather long, open tubiform scales, curving up and back, and frilled with recurved valid scales distributed in spiral rows as though along spiral liræ, two in each spire-whorl and ten in the body-whorl, extending over the base, and over the back of the canal. Colour white, with a narrow brown band immediately above the suture, and from behind the aperture round the base to the front part of the labrum.

Dim.—Length, 8·5 mm.; of the body-whorl, 4·6 mm.; width, 3·5 mm., excluding the long scales.

Locality.—Type in 90 fathoms off Cape Jaffa, with 27 others good; in 130 fathoms, 11 good; in 110 fathoms off Beachport, 11 good; in 150 fathoms, 4 good; in 200 fathoms, 4 good; in 104 fathoms off the Neptune Islands, 20 good, small.

Trophon plicilaminatus, n. sp. Pl. xxiv., figs. 1 and 2.

Shell thin, long, narrow, fusiform, of 8 whorls, including a protoconch of 2 smooth, convex, prominent whorls. Spire-whorls convex, swollen, and angled above the middle, contracted towards the distinct simple suture. Body-whorl convexly contracted below the angle, then concavely produced into a long, narrow snout. Aperture oval, wider behind; canal long, narrow, slightly oblique to the left, not recurved, making a faint round angle with the base of the columella. Inner lip a thin applied glaze. Axial lamellæ, fifteen in the penultimate, from suture to suture, erect and imbricating, projecting at the angle in long, open tube-like upward-curved

ing scales, and below this folded in two spiral lines. In the body-whorl are four of these spiral foldings, progressively decreasing in size towards the base of the shell, in front of which the lamellæ are crenulate as they run along the snout, which they cross to the right further and further forward as they approach the aperture.

Dim.—Length, 13·9 mm.; of body-whorl, 9·8 mm.; width, 5·3 mm.

Locality.—Type in 150 fathoms off Beachport; in 200 fathoms, 2 good.

Trophon recurvatus, n. sp. Pl. xxiv., figs. 7 and 8.

Shell fairly solid, elongate-conical, of 7 whorls, including a prominent conical protoconch of $2\frac{1}{2}$ smooth, convex turns, separated by a deep suture, and with a curious acute exsert apex. Spire-whorls short, wide; with very oblique simple sutures; swollen, sharply angulate just above the middle, below which in the body-whorl the base is rapidly contracted. Aperture roundly oval; canal about as long as the aperture, slightly deviated to the left, forming an open angle with the columella, markedly recurved. Outer lip thickened, equidistantly biangulate; inner lip inconspicuous. The sculpture consists of axial lamellæ, thirteen in the penultimate, which are folded into prominent scales at the angle; and in the body-whorl, at a spiral cord (which starts at the suture from the back of the aperture, runs round the base, and angulates the outer lip); and then crenated run over three obsolete spirals winding round the base, and finally bend in turn to the right over the back of the canal. It is of a uniform light-horn colour.

Dim.—Length, 6·7 mm.; of the body-whorl, 3·6 mm.; width, 3 mm.

Locality.—Type in 200 fathoms off Beachport.

The recurved short canal distinguishes it from *T. plicilaminatus*.

Mitra arnoldi, n. sp. Pl. xxiv., fig. 6.

Shell solid, elongate-oval, of 7 whorls, including a blunt brown protoconch of 2 convex smooth whorls. Spire-whorls convex in the upper half, nearly straight in the lower. Suture distinct, very narrowly tabulate. Base moderately roundly contracted. Aperture elongate-oval. Outer lip simple, thin, profile slightly sinuous, with numerous spiral plicæ in the throat. Columella nearly straight, slightly cut away to the left in front, with four stout oblique plaits; notch with a narrow reflected edge. Wide, round, low axial ribs, much

wider than the interspaces, thirteen in the penultimate, undulating the suture, vanishing on the base of the body-whorl and towards the aperture. Articulated with infrasutural large irregular blackish-brown blotches, about nine in the body-whorl; and with two similar approximate spiral rows, the upper the larger, winding round the base from the back of the aperture, below which are dark maculations. A spiral of close-set axial, narrow, brown hair-lines covers the lower third of each spire-whorl, and runs between the two rows of larger articulations on the body-whorl.

Dim.—Length, 12 mm.; body-whorl, 6.25 mm.; width, 5 mm.

Locality.—Type, beach Petrel Bay, St. Francis Island, many; MacDonnell Day, rare.

It is named after Master Francis Arnold, of St. Francis Island, who was of great help to me when collecting on that island, made historic by the visits of Matthew Flinders and Mons. Baudin.

Mitra bellapicta, n. sp. Pl. xxv., fig. 1.

Shell elongate-oval, of 7 whorls, including a blunt protoconch of 2 smooth, convex whorls. Spire-whorls convex, fullest just below the middle. Sutures linear, impressed. Base roundly contracted. Aperture obliquely narrowly oval. Canal wide, very short, slightly recurved, scarcely notched. Columellar plaits four, strong, the lowest very small. Outer lip thin and simple. Axial costæ, twelve in the penultimate, six in the body-whorl, vanishing towards the base and towards the aperture; three spiral cords wind over the dorsum of the base, above, and smaller than the columellar plaits.

Colour pinkish-brown. The spire-whorls have a white band just below the middle, bounded above and below by a line of opaque-white spots, and outside this by a fine broken brown hair-line. There is a row of small brown spots below the suture. In the body-whorl is also an articulated spiral of closely-set, axially-curved white and brown spots, commencing just within the back of the aperture. Obscure white and brown maculations tint the front of the base.

Dim.—Length, 9.6 mm.; body-whorl, 5.5 mm.; width, 5.1 mm.

Locality.—Type from 40 fathoms off Beachport, with 12 others in moderate condition.

This may be a variety of *M. vineta*, A. Adams (*volutomitra*), close to *M. weldii*, Tenison-Woods.

Mitra retrocurvata, n. sp. Pl. xxiv., figs. 4 and 5.

Shell fusiform, of 8 whorls, including a prominent protoconch of 2 smooth, well-rounded whorls, with a blunt apex. Spire-whorls convex, with deeply-impressed sutures. Body-whorl large, roundly contracted at the base into a snout, well curved dorsally and to the left. Aperture oblong-elliptical, opening gradually into an open canal with a wide, shallow notch. Outer lip thin and simple. Inner lip a complete very thin applied glaze. Columella very long and convexly curved, with four oblique plaits, the highest rather distant. Valid axial ribs, from suture to suture, twenty-one in the body-whorl, concave forwards, trigonal, with widely-sloping sides, vanishing rapidly below the periphery of the body-whorl. Under the microscope a few obsolete narrow spirals are detectible. Over the base are sixteen oblique spirals, issuing from beneath the inner lip, most valid in front and gradually vanishing upwards; among them are the larger columella plaits. The accremental striæ are fine, most marked on the back of the canal, where they validly cross the oblique spirals. Colour yellow-brown, with a white central broad band divided by a narrow colour band; the base is indistinctly axially flamed with white.

Dim.—Length, 16·5 mm.; body-whorl, 10·75 mm.; width, 6·25 mm.

Locality.—Type from 110 fathoms off Beachport, with 7 others; in 150 fathoms, 4 moderate.

The special character is the arched canal. In some of the cotypes the axial ribs fade out on the third whorl, and in others on the fourth.

Olivella (?) adiorygma, n. sp. Pl. xxv., figs. 3 and 4.

Shell small, solid, obliquely elongate-oval, smooth and white: apex blunt: whorls four, sloping convex. Suture linear, not canaliculate. Aperture oval, narrowed behind, widely open in front, notched; outer lip ascending at the suture, simple, bevelled inside; inner lip a glaze over the columella, which has no plaits.

Dim.—Length, 5·2 mm.; of body-whorl, 3·35 mm.; width, 2·3 mm.

Locality.—Type from Backstairs Passage, 17 fathoms, with 1 other specimen; Gulf St. Vincent, depth unrecorded, 2, all dead.

Diagnosis.—It differs from *Olivella* in the absence of a canaliculate suture, and from the *Volutidæ* in its smooth columella. Its generic location is not known to me.

Olivella solidula, n. sp. Pl. xxv., figs. 7 and 8.

Shell small, solid, shining-white, smooth, obliquely elongate-oval. Apex blunt, four whorls, sloping convex, suture well channelled. Aperture oval, contracting gradually to a linear gutter posteriorly, widely open in front, and notched; outer lip simple, smooth; inner lip is a narrow, thick glaze over the base to the suture, slightly spreading over the columella.

Dim.—Length, 6 mm.; of body-whorl, 4 mm.; width, 2·3 mm.

Locality.—Type from 55 fathoms off Cape Borda, with 1 other; Backstairs Passage, 22 fathoms, 3 specimens; Gulf St. Vincent, (?) depth, 3, none alive; Venus Bay beach, 1.

Diagnosis.—It differs from *O. triticea*, Duclos, in having fewer whorls, being more solid, not so contracted anteriorly, and in not having a wide callus winding from the inner lip over the front of the dorsum; from *O. exquisita*, Angas, which it closely resembles, in being smaller, narrower, and pure-white.

Ancilla beachportensis, n. sp. Pl. xxiv., fig. 9.

Shell solid, oval, of 4 whorls. Apex markedly papillate. Spire completely covered with callus, almost obliterating the sutures, which are indicated by shallow furrows, between which over each whorl are some three low, broad spiral ridges. Aperture triangularly-oval, narrow behind, widely open in front, truncated, and widely notched. Outer lip simple, thin, with a callous thickening in its upper sixth, and with a tooth near its anterior end. Inner lip a thick callus, extending beyond the aperture, and up over the spire, where it recedes in steps just above each sutural groove. Columella nearly straight, truncate, with six oblique curved plaits in front. The body-whorl has two approximate grooves, winding round its base from above the middle of the aperture, the upper one to the labral tooth, the lower to just above the notch; a third lies above a band of callus extending from just above the columellar plaits to the left pillar of the notch; another groove bounds, at its lower edge, the spiral callus which spreads down from the suture and thickens the back of the outer lip. The body-whorl between these grooves has sublenticular axial and spiral scratchings, and has a faint-bluish-grey tint, whereas the callus is milk-white.

Dim.—Length, 20·5 mm.; of the aperture, 12 mm.; width, 9·5 mm.

Locality.—Type from 110 fathoms off Beachport, with 9 others.

Philippiella rubra, Hedley.

Philippiella rubra, Hedley, Proc. Linn. Soc., New South Wales, 1904, part 1, p. 207, pl. x., figs. 44 to 47. *Type locality*—"Eagle Hawk Neck, Tasmania," also "Long Bay, New South Wales"; Pritchard and Gatliff, Proc. Roy. Soc., Victoria, 1906, vol. xviii. (N.S.), part 2, p. 69, "7 fathoms, Western Port, etc., Victoria"; May, Proc. Roy. Soc., Tasmania, 1908, p. 55.

MacDonnell Bay, shell-sand (Dr. Torr).

EXPLANATION OF PLATES.

PLATE XX.

- Fig. 1. *Philine beachportensis*, Verco, dorsal view.
 " 2. " " " ventral view.
 " 3. " " " posterior end.
 " 4. *Aglaja troubridgensis*, Verco, interior.
 " 5. " " " exterior.
 " 6. *Cyclostrema jaffaensis*, Verco.
 " 7.
 " 8. *Philine evoluta*, Verco, exterior.
 " 9. " " " interior.
 " 10. *Eunaticina albosutura*, Verco.
 " 11. " " "

PLATE XXI.

- Fig. 1. *Typhis bivaricata*, Verco, protoconch.
 " 2. " " " dorsum.
 " 3. *Trophon latior*, Verco.
 " 4. " " " protoconch.
 " 5. " *longior*, Verco, protoconch.
 " 6.
 " 7. *Voluta fulgetrum*, Sowerby, var. *dictua*, Verco.
 " 8. *Donovania fenestrata*, Tate and May.
 " 9. " " " protoconch.
 " 10. *Cominella torvi*, Verco.
 " 11. " " "

PLATE XXII.

- Fig. 1. *Triphora epallaxa*, Verco.
 " 2. " *spina*, Verco.
 " 3. " " " mouth.
 " 4. " " " protoconch.
 " 5. " *armillata*, Verco.
 " 6. " *dezia*, Verco.
 " 7. " " " protoconch.
 " 8. " " " mouth.
 " 9. " " " mouth.
 " 10. " " " mouth.

PLATE XXIII.

- Fig. 1. *Triphora spica*, Verco.
 .. 2. ,, *cana*, Verco.
 .. 3. ,, ,, ,, protoconch.
 .. 4. ,, ,, ,, mouth.
 .. 5. ,, *subula*, Verco.
 .. 6. ,, ,, ,, protoconch.
 .. 7. ,, *gemmegens*, Verco.
 .. 8. ,, ,, ,, protoconch.

PLATE XXIV.

- Fig. 1. *Trophon plicilaminatus*, Verco.
 .. 2. ,, ,, ,,
 .. 3. ,, *segmentatus*, Verco.
 .. 4. *Mitra retrocurvata*, Verco.
 .. 5. ,, ,, ,,
 .. 6. ,, *arnoldi*, Verco. "
 .. 7. *Trophon recurvatus*, Verco.
 .. 8. ,, ,, ,,
 .. 9. *Ancilla beachportensis*, Verco.

PLATE XXV.

- Fig. 1. *Mitra bellapicta*, Verco.
 .. 2. *Hemipleurotoma mayi*, Verco.
 .. 3. *Olivella* (?) *adiorygma*, Verco.
 .. 4. ,, ,, ,,
 .. 5. *Daphnella stiphra*, Verco. "
 .. 6. ,, ,, ,, protoconch.
 .. 7. *Olivella sobidula*, Verco.
 .. 8. ,, ,, ,,

PLATE XXVI.

- Fig. 1. *Triphora latilirata*, Verco.
 .. 2. *Drillia achatina*, Verco.
 .. 3. ,, *trophonoides*, Verco.
 .. 4. ,, ,, ,, protoconch.
 .. 5. ,, *lacteola*, Verco.
 .. 6. ,, *hedleyi*, Verco.
 .. 7. ,, *jaffaensis*, Verco.
 .. 8. ,, ,, ,, protoconch.
 .. 9. ,, ,, ,, aperture.

PLATE XXVII.

- Fig. 1. *Drillia costicapitata*, Verco.
 .. 2. ,, ,, ,, protoconch.
 .. 3. *Mangilia impendens*, Verco.
 .. 4. *Mitromorpha angusta*, Verco.
 .. 5. ,, ,, ,, protoconch.
 .. 6. *Drillia subplicata*, Verco.
 .. 7. ,, *agrestis*, Verco.
 .. 8. *Mitromorpha paucilirata*, Verco.
 .. 9. ,, ,, ,, protoconch.

